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SURVIVAL

WINTER'S RAGE

USING WINTER TO TRAIN FOR
LONG-TERM SURVIVAL

GUIDE

Vol. 5 Issue 2

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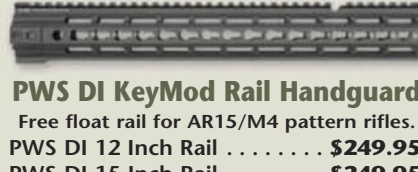
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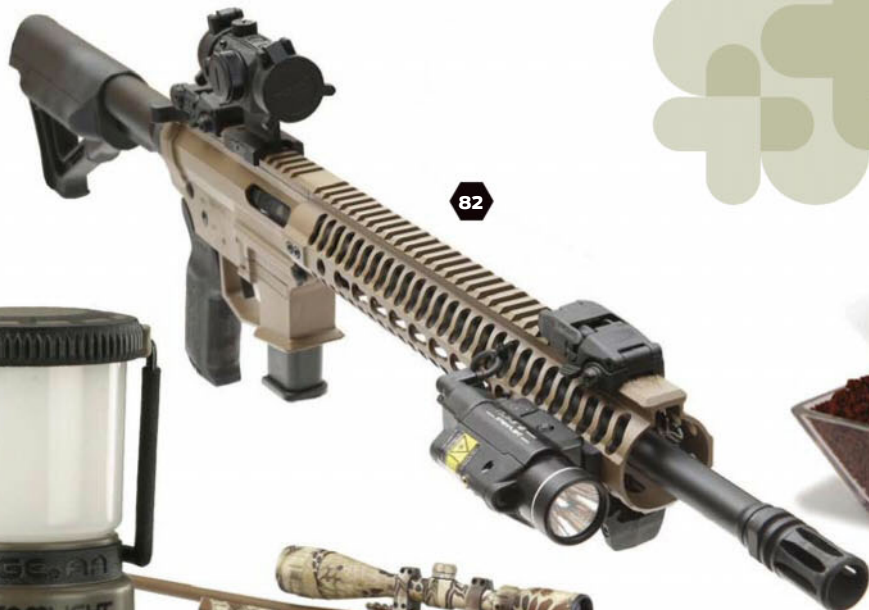
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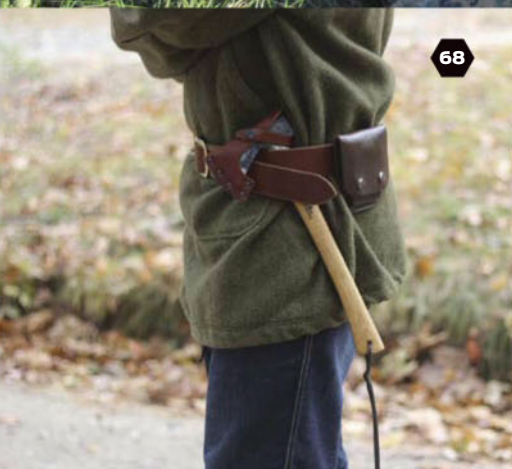


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ON THE COVER:
An all-too-often occurrence is someone getting stranded or having an accident and not being properly prepared for injuries or to combat the elements in a short-term survival situation.

WINTER— THE SURVIVALIST'S PROVING GROUND

Of all the seasons of the year, winter is probably the one most responsible for making people stop and think at least a little bit about being prepared.

A significant portion of the country is susceptible to winter's vagaries, from ice storms with power outages to snowfalls that hinder movement and shut people inside for extended periods of time.

I lived in North Dakota for a while, and the things they do there to prepare for winter don't make them label themselves as "survivalists"; it's just their way of life. However, there are some parts of the country that usually enjoy mild to moderate winters but can sometimes get caught off guard by an anomalous weather event.

Nevertheless, the majority of people in our country do take a little time to ask some questions, such as:

- Do we have enough food to last through a storm?
- Will the generator run?
- Do we have enough firewood?
- Do I have enough of my prescription medication?
- What do we do if we can't get out of the house for a while?
- Is there enough fuel (i.e., gasoline/propane/diesel/fuel oil)?

You get the idea.

However, our preparations for a hard winter can translate into the same kind of planning for long-term preparedness for a situation that could last six to 12 months or even years. For example, if the garden won't grow and/or we can't leave the house/bunker (as in a winter storm), how much food do we need for a long-term survival situation? Where will we store it? How will we protect it? Is it nutritionally viable?

The types of needs we have to make it through a hard winter are more or less the same kinds of needs that would occur if there were a long-term survival scenario playing out in our part of the world. Maybe it's a cyber warfare attack that takes down the power grid, or it could be a viral epidemic that forces us to stay indoors for months on end.

The *Daily Mail* reported last November 3rd that the White House (read "American government") is making preparations to deal with the consequences of a severe solar flare striking the earth. A catastrophic solar storm just barely missed the earth in 2012. Such an event could take down the power grid, communications systems and even disrupt the distribution of critical supplies such as food, medicine, water and fuel. The ramifications of such a cataclysmic event would not be just for one season; they could last for years.

That's why winter serves as such a good example of the types of problems you might have in a TEOTWAWKI situation. The food might not grow. You might be immobile. It's possible you might not have enough critical supplies, such as medications and sanitation products. You might have to go underground for long periods or fight your way through a desperate crowd. Although the "illness" might be different, the symptoms will be the same.

Even when winter is over, act as if it's just around the corner, and keep making preparations. The seasons are predictable, but other events are not. Survive or die. It's your choice, and when the time comes, you might not get a second chance.



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NEW 02.16 PRODUCTS



1

2



1

Mini Lantern and USB Charger

The most unrelated things get tied together because of the progress of technology. One example is Goal Zero's Lighthouse Mini Lantern. Charged via its mini-USB port, it can also charge items such as cell phones if you're on the move or need a last resort for power. It has fold-up/-down legs, making it a very portable light source that can run up to 500 hours on its 3,000 mAh battery. The dual functionality of being a charger and a lantern makes this product a prime choice for your next outing.

Specifications

- LED output: 5W max, 210 lumens
- USB output: 5V up to 1A
- Weight: 8 ounces
- Warranty: 12 months
- Dimensions: 2.9x4.15 inches

MSRP: \$59.99
www.goalzero.com

2

For Precision Hunting

Hornady is throwing down the gauntlet with the introduction of its Precision Hunter line of ammunition. The company's Heat Shield technology is designed to cope with aerodynamic heating to help retain shape and is supposed to maintain the highest-in-class BC during its trajectory. Initial calibers in this lineup are 6.5 Creedmoor, 7mm Rem Mag, .308 Winchester, 30-06, 300 Win Mag and 300 RUM.

Specifications

- Streamlined secant ogive
- Boattail design
- Highly concentric AMP bullet jackets

MSRP: \$42.88–\$126.85
www.hornady.com



3

3

A Floodlight at Your Fingertips

In collaboration with PK, Four Sevens has recently introduced its most powerful single-battery LED light thus far. The new PK Knight emits an incredible 450 lumens of white light, but the wonder comes when you consider its small size. Powered by just one CR123 battery, the PK Knight has a run time of two hours on the high setting, and it can run for 30 hours on the low setting (25 lumens). In addition to these two base settings, there are five other available options, as well.

Specifications

- Length: 2.4 inches
- Weight: .95 ounces (empty)
- Diameter (body): .78 inch
- Diameter (head): .90 inch
- LED type: CREE XM-L2
- Body material (type III anodized aluminum)
- Includes: battery, stainless steel strike bezel, extra O-ring, clip
- Special modes: S.O.S., medium (100 lumens), beacon (high), beacon (low)

MSRP: \$75
www.foursevens.com

4

Freedom Is Born Anew!

CrossBreed Holsters is at it again. Not satisfied with the success of its earlier products, the company continues to innovate and find more ways to make concealed carry more comfortable for its consumers. That innovation is apparent in the new Freedom Carry holster. Because of its design, the Freedom Carry can be worn on the strong side, as well as in appendix-carry and cross-draw positions, making it one of the most versatile holsters in CrossBreed's lineup. If you liked its "Tuck" line of holsters, it only gets better with the Freedom Carry.

Specifications

- Available for more than 300 firearms
- Available for some firearms with some lights or lasers
- Tanned or black-dyed cowhide; tan horsehide

MSRP: \$64.50
www.crossbreedholsters.com



4

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5

Comfy Revolver Lasergrips

Improving on its already effective S&W round-butt, J-frame revolver laser grips, Crimson Trace has offered up its new LG-350 grips. These Shock-Stop lasergrips are available with either a red or green laser (LG-350G). What makes these grips appealing is the addition of softer rubber panels on the front and back of the grips to help mitigate felt recoil. For folks who were hesitant to use the earlier, harder lasergrips in conjunction with their small powerhouses, it looks as if a solution has arrived!

Specifications

- New Shock-Stop technology
- Instinctive activation front pad
- Master on/off switch
- User-adjustable elevation/windage

MSRP: \$319 (red); \$399 (green)
www.crimsontrace.com



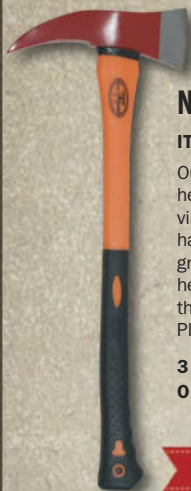
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1	Onion
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1	Butternut Squash
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1	Radish
1	Zucchini
1	Tomatoes
1	Peppers
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4	Green Beans



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6	4oz Pouches of Drinking Water
1	1 Qt Canteen
1	Sierra Cup
1	Tube Tent
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1	12 Hour Light Sticks
1	50 Hour Candle
1	Box Waterproof Matches
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1	13 Function Pocket Knife
1	Minor Medical First Aid Kit

REG. \$69.95

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\$54.95**



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NEW 02.16 PRODUCTS



6

HD Binocular

A new product has been added to the current family of Meopta's MeoPro HD series of binoculars. The newest member is the MeoPro 8x56 HD. Termed by the company's president as the "perfect low-light binocular," the 8x56 HD includes such features as Fluoride HD objective lenses and MeoBright ion-assisted multi-coatings, and it replicates the full dilation of a human's pupil in low light. It includes a magnesium chassis with a rubber-armored exterior. The MeoPro 8x56 HD is both fog- and weatherproof.

Specifications

- Field of view: 314 feet @ 1,000 yards
- Exit pupil: 7 mm
- Height: 7.0 inches
- Width: 5.6 inches
- Depth: 2.6 inches
- Weight: 36.3 ounces

MSRP: \$1,034.99
www.meoptausa.com



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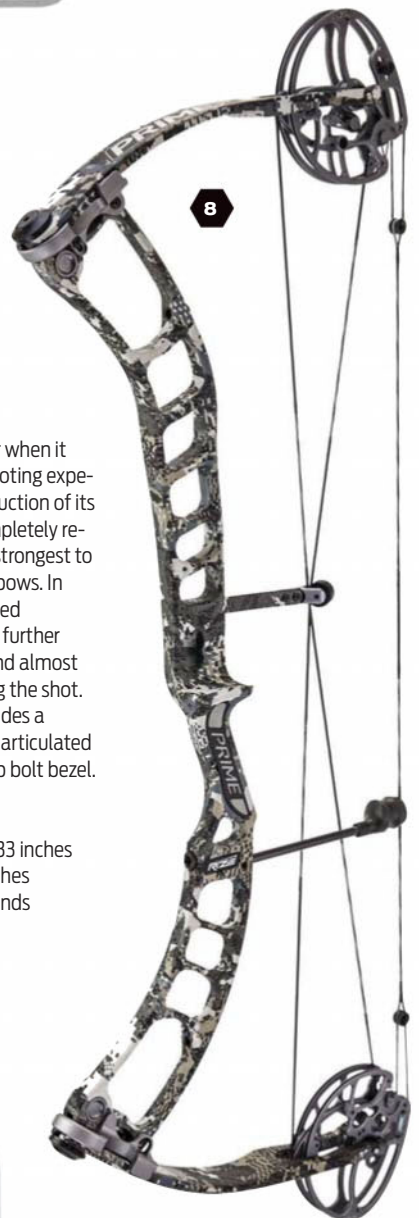
A Different Kind of 1911

Tired of the same, old 1911 specs? Coonan has just introduced a .45 ACP 1911 that incorporates some of the same features of its unique .357 Magnum 1911 model. Dubbed the "Coonan Difference," this new .45 ACP model includes linkless barrel design—which the company claims "offers increased accuracy while virtually eliminating feeding issues"—and its external, coil-spring-activated extractor. If you're looking to step up and try something different, here's your chance!

Specifications

- Caliber: .45 ACP
- Barrel length: 5.0 inches
- Overall length: 8.4 inches
- Height: 5.3 inches
- Width: 1.3 inches
- Weight: 40.0 ounces (empty); 45.2 ounces (loaded)
- Magazine capacity: seven rounds
- Sights: Novak-style rear, Blade front

MSRP: \$1,375
www.coonaninc.com



8

Prime Rize

Prime is raising the bar when it comes to the bow-shooting experience. With the introduction of its Rize bow comes a completely re-engineered riser—the strongest to date in Prime's line of bows. In addition to the increased strength, the new riser further dampens vibrations and almost eliminates noise during the shot. The package also includes a FlexShock damper, an articulated grip and a smooth limb bolt bezel.

Specifications

- Axel-to-axel length: 33 inches
- Brace height: 6.75 inches
- Mass weight: 4.3 pounds
- IBO speed: 335 fps

MSRP: \$1,049
www.g5prime.com

9

Pocket Full of Goodness

Just when you think you've got Spyderco figured out, this company will shake up the mix and surprise you again. One of its newest products is the Mantra 2, and it's got a little different flavor to it than typical designs. The unusual blade profile makes the Mantra 2 a versatile tool for cutting tasks, including self-defense scenarios. Sporting titanium scales and CPM M4 for the blade material, this new Spyderco offering is about as high tech as it gets. Additionally, it includes a flipper-style opening mechanism rather than the standard opening hole in the blade.

Specifications

- Closed length: 4.11 inches
- Blade length: 3.2 inches
- Blade thickness: .12 inch
- Weight: 2.8 ounces
- Grind type: full flat

MSRP: \$279.95

www.spyderco.com

10

Revolvers Now Going for a WalkAbout

As a result of the popularity of its lightweight line of WalkAbout holsters, Galco Gunleather has expanded its line of Carry Lite holsters to now include WalkAbout models for revolvers. Constructed with premium center-cut steer hide and an injection-molded clip, the new WalkAbout also includes a carrier for an HKS-style speed-loader or moon clip—in case extra ammunition is needed to finish your stroll.

Specifications

- Center-cut steer hide
- Injection-molded clip
- Reinforced mouth for easy holstering
- Fits belts up to 1.75 inches wide

MSRP: varies

www.galcogunleather.com



9

CAN'T GET ENOUGH ASG? WHEN YOU'RE NOT OFF THE GRID, BE SURE TO FIND US ON **FACEBOOK:** facebook.com/americansurvivalguidemagazine and **INSTAGRAM:** [#americansurvivalguide](https://instagram.com/americansurvivalguide)

11

Advanced Combat Optics

Taking the reticle concept from long arms, Meprolight has put a new twist on combat sights for handguns. By combining two horizontal lines with one vertical line, the new R4E Optimized Duty Sight creates a facsimile of a reticle that draws the shooter's eye in to quickly acquire the target. Designed in conjunction with operators in the U.S. Special Forces, the R4E is built to withstand the harshest conditions. Meprolight guarantees brightness for 15 years. This is a completely new perspective on handgun sights and should prove to be very interesting.

Specifications

- Assists in rapid target acquisition
- Two horizontal and one vertical line create reticle effect
- The brightest night sight available
- Tritium-powered with guaranteed brightness for 15 years

MSRP \$174.75

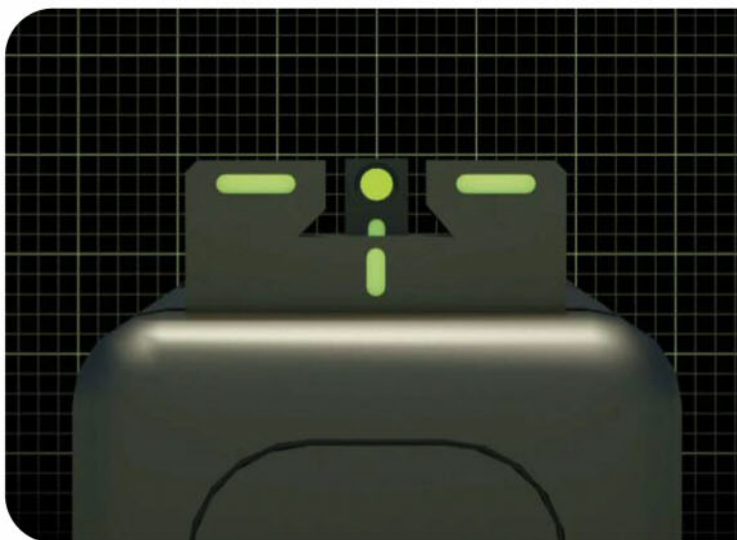
www.themakogroup.com

ASG



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11



02.16

WALK AWAY ALIVE

VITAL PREPS FOR WINTER CAR SURVIVAL By Jeff Zurschmeide

WINTER IN NORTH AMERICA PRESENTS A HOST OF CHALLENGES. ONE OF THE MOST LETHAL CAN BE TRAVELING BY CAR.

Beyond the risk of sliding off an icy road and bending your car, the same minor accident can be life threatening if you're anywhere off the well-trodden path. However, if you have some common sense and you've packed a few simple supplies, you can be ready for anything Old Man Winter might have in store.

CAUTIONARY TALES

Two true stories illustrate the challenges of winter survival when your car has gotten well and truly stuck.

The first involves the Stolpa family, who decided to use minor roads to travel from Nevada to Idaho in the winter of 1993. After leaving the main highway, the family became lost, and their car got stuck. Jim Stolpa managed to find a cave, in which his wife and infant child took shelter. He hiked back and made it to a town to get help—but at the cost of severe frostbite damage to his feet.

James Kim was not as fortunate. He and his family were driving to Oregon, got lost and accidentally turned onto a BLM logging road. He died while trying to find his way out of the wilderness before rescuers could find his wife and child, who had stayed with the car.

In both cases, these families made a series of errors that led them to grief. The first and most important mistake was for untrained people to leave well-maintained roads and then to keep going when the



***“EVEN THE BEST, MOST-PREPARED DRIVERS
SOMETIMES FIND THEMSELVES BACKED
INTO A DITCH AND WAITING FOR SOMEONE
TO PULL THEM OUT.”***



(above) To stay safe when you're away from civilization, you need to rely on your own skills and whatever you've brought along.

(below) A small fender-bender with a snowbank is nothing to worry about. However, check your exhaust if you went in backward.

road was clearly too difficult for their vehicles. Second, neither family told anyone what they were doing or what route they planned to take, so no one knew where to look for them. (Search-and-rescue authorities generally do not act until people have been missing for at least 24 to 48 hours, and that can be deadly in winter.) Finally, neither family was adequately supplied for winter conditions.

The good news is that if you avoid the same mistakes, you're in great shape to make it to

your destination. If the worst does happen, you can be ready for that, too.

DON'T GET STUCK IN THE FIRST PLACE

Getting stuck in snow or ice is annoying at the best of times and can also be life threatening, so your best course of action is to avoid the whole scenario. But winter travel is a fact of life, and sitting at home by the fire with a hot beverage may not be possible.

To help you get where you're going, here are a few winter driving tips:

✓ **Tell someone where you're going.** This is as simple as a call or an e-mail to friends or relatives to say where you're going, when you'll be there and a note that if they haven't heard from you by some reasonable time, to sound the alarm.

✓ **Invest in appropriate tires.** Ask yourself if your tires are really ready to handle the roads where you need to go. A spare set of wheels from craigslist and a set of snow tires can generally be bought or assembled for about \$300. (Make sure you test them before you really need them.) Alternatively, you can carry chains, but these are miserable to install and hard to drive on.

✓ **Stay on maintained roads.** Most winter disappearances happen because people decide to take a shortcut or they choose a minor road that doesn't get plowed. Either way, those roads take you far from assistance and potentially into tough terrain.



✓ **Know when to bail out.** The problem with so many of today's 4WD and AWD vehicles is that they will get you just far enough so that you're well and truly out of luck when they can't get you any farther. You might have to swallow a little pride, but the first time you have doubts about your route is generally the time to turn around.

✓ **Carry your winter safety kit at all times.** This kit can be as simple as a cardboard box in the trunk or as elaborate as you want. But keep the basics of traction on hand, even if it's just a \$4 bag of sand.

✓ **Don't go too fast.** Your AWD or 4WD vehicle is great at getting moving but only a little better than a regular car at turning; and when it comes to stopping, AWD gives you nothing. So, if you find yourself going into a corner too fast, you've got nothing in reserve. Take it easy, and get where you're going.

✓ **Learn to steer your way out of a skid.** Racing and rally drivers know that your car tends to go in the direction you're looking. That's because your hands are smarter than your brain. If your car starts to slide, don't look at the ditch or the tree—look down the road in the direction you want to go. Physics always has the last word, so this doesn't work every time, but it works often enough.

YOUR WINTER SAFETY KIT

There's no need to go out and spend a bunch of money to buy a pre-made winter kit. The checklist provided in this article will help you



make your own winter safety kit that will prepare you for almost any situation—and be made of higher-quality stuff than the assembled kits. You can make up your kit a few pieces at a time, and you probably have most of this stuff in the garage already. Most of the rest can be found inexpensively at a thrift or surplus store.

In addition, note that your ideal kit might vary from this list. Use your own experience and advice for your region of the country to tailor

(above) One of the big dangers of winter driving is other cars. Even if you're under control, don't expect other drivers to have their acts together.

(below) The bigger they are, the farther they slide. Keep your car's mass and momentum under control at all times.





this list to your needs. You can put everything in a plastic tote or even a cardboard box—whatever works for you!

GETTING UNSTUCK AND RESCUED

✓ **Traction pads.** These are foldable, ribbed, plastic plates that go under your tires to help get some grip. You can even use a piece of expanded metal. The point is to have something you can wedge between your tires and the ice and snow to achieve enough traction to get going.

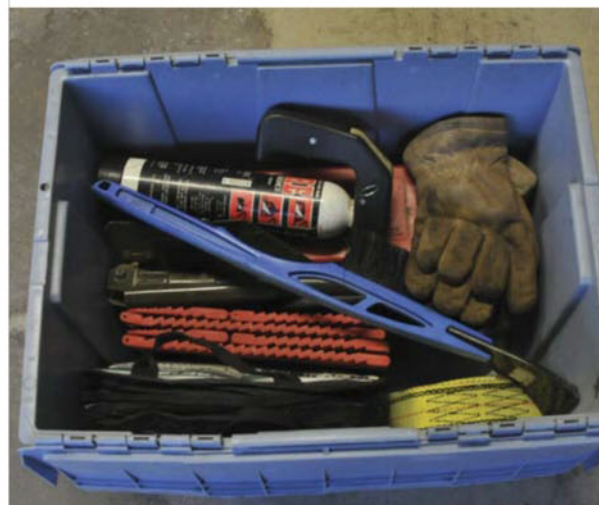
✓ **Bag of sand.** An ordinary bag of playground sand from the home supply store can turn ice into a drivable surface.

✓ **Entrenchment tool.** A folding shovel with a pick end is a compact tool that can really come

(above) You can use an ammo can and a trip to the surplus store to build up your first aid kit with seriously useful items.

(above right) Your winter safety supplies will generally fit into a standard plastic tote (available at any home supply store).

(below) Ice and packed snow get worse in shaded areas. At this moment, the temperature was -16 degrees (F), but in the sunlight around the corner, it was above freezing. The freeze-melt-freeze cycle creates slick ice.



in handy. Your local military surplus store will have a good one. Camp shovels and the lightweight shovels included in winter safety packages are generally not adequate for the task.

✓ **Tow strap.** Get a new one and keep it in its package until you need it. Ropes, bungee cords, tie-down straps and the like just aren't strong enough.

✓ **Spare tire.** Winter hides a lot of road hazards, and if your spare is a balding summer tire, you've got potential headaches ahead. Seasoned winter drivers in extreme climates often buy six wheels and snow tires and carry two spares.

✓ **Road flares.** These are excellent for alerting others to danger and being noticed if you're in a bad situation. You can also use these to start a fire if you need one.

✓ **Reflective triangles.** Use these to warn other drivers that your car is stuck up ahead. Place them around the nearest corner or far enough away so that drivers have time to slow down. Experienced winter drivers will expect to see your car on the same side of the road where you placed your warnings.

STAYING ALIVE

✓ **Fresh water.** Carry several quarts of bottled water for drinking and potentially for your car's radiator.

✓ **Food.** Cereal bars are compact, they store well and will help you with energy. Trail mix, jerky—all the usual storage-stable choices—should be in your kit. Pack enough to feed everyone a reasonable diet for up to three days.

✓ **Warmth.** Mylar space blankets fold up small and hold in body heat very well. They are silver on at least one side, so they can also be used to draw attention to your location. In



1 An old towel in your kit has 100 uses, from an emergency blanket to a pillow to a flag you can wave to get attention.

2 Traction plates will get you out of a lot of marginal situations, and they don't cost or weigh much.

3 Important tools include an ice and snow remover and a folding shovel and pick. Get high-quality tools, and you'll never be sorry.

4 Even if you have snow tires, a set of chains is not a bad idea.

5 A fresh tow strap is a necessity. You don't want this to break at the moment you need it most.



6 A good fire extinguisher doesn't have to be a 5-pounder like this one. But if you've got one, it's better to have overkill than not enough.

7 Keep a good pair of warm gloves in your kit. They don't have to be waterproof, but don't use single-layer cotton gloves that will freeze right up.

8 Get a good set of reflective triangles and use them if you're stuck. It could save you—and another driver—from grief. Plus, if that other driver doesn't hit you, they can help you.

“HAVE A GOOD FIRST AID KIT ON HAND ...”

addition, you can get some heating packets for comfort. Don't forget a parka, a couple of pairs of warm gloves and a ski cap (you might have to work outside your car for an extended time).

✓ **First aid.** Have a good first aid kit on hand. Ask about a serious kit at the military surplus store. Include a supply of any important family prescription medicines in the kit.

✓ **Carbon monoxide detector.** Passive monoxide detectors can be purchased for as little as \$10, and they last up to 18 months from the moment you open them. Put one or two into your safety kit and open them if you get stuck.

✓ **Mental health.** Toss in a deck of cards and a good book or two. You might be there a while.

✓ **Fire extinguisher.** It's always a good idea to carry one, but if your car gets stuck off the road, the risk of fire goes up.

BONUS ITEMS

✓ **Satellite phone.** If you're really heading far away from civilization, a rented satellite phone could be worth the expense.

✓ **Personal locator beacon.** These can be purchased or rented, and they send out a basic radio signal that helps rescuers find your location in an emergency.

✓ **Extra fuel.** Up in the Arctic, they have a rule: Never pass a gas station without stopping. In the far North, there could be more than 200 miles between towns and service stations. You might make it almost all the way to the next services and be forced to turn back, so take every opportunity to keep your tank full, as well as a spare can on the roof or in the truck—but never inside the car!

✓ **Advanced driver training.** Many areas offer classes in winter driving using the SkidCar system. This is a device that removes weight from the wheels of a training car, thereby simulating snow or ice conditions. You can be in a clean parking lot in July and still practice your winter driving skills. A one-day class in a Skid-Car is just a few hundred dollars and is well worth the investment.

IF YOU GET STUCK

Getting stuck happens. Even the best, most-prepared drivers sometimes find themselves backed into a ditch and waiting for someone to pull them out. Backcountry regulars equip their



**“UP IN THE ARCTIC,
THEY HAVE A RULE:
NEVER PASS A GAS
STATION WITHOUT
STOPPING.”**



PHOTO BY THINISTOCK

(above) The buddy system is one of the best ways to stay safe. Keep your friends—or any other cars—in sight as much as possible, and stop to help those who are stuck.

(left) That triangle is way too close to the car to do any good. She's going to get hit.

(below) Big danger here. Don't swerve to avoid the deer, or you'll lose control on the curve. Don't hit the deer, either, or you'll lose control on the curve.

vehicles with winches, cables and more so they can pull themselves free. However, for most of us, getting stuck means waiting for help.

So it's a good idea to review these survival guidelines for the worst-case scenario.

✓ **Stay with your vehicle if possible.** In general, your car will be the best shelter you can find. If you told someone your planned route, people will be looking for you pretty soon. If you have an adequate supply of fuel, your car will be warm and dry for days. Even if you can't run the engine, your car is insulated. Your car is also big, so it's easier to spot.

✓ **Take stock of damage to your vehicle.** If you crashed, don't worry about the paint and



PHOTO BY THINISTOCK

sheet metal. Try to see if the exhaust pipe was crushed at any point and check to make sure the fuel tank and fuel lines are not leaking. If you smell gasoline, your car is no longer a safe refuge. If your radiator or cooling system was punctured, you won't be able to run the engine for long or get heat in the cabin. Also check the battery connections to make sure the battery is not cracked or creating a short circuit.

✓ **Make sure you're not in an impact area.** If you crashed going around a curve, chances are good that the next car coming up the road will end up in the same place. If you think there's danger of a secondary crash, place your road flares or triangles around the corner on the same side of the road where your car is stuck. You must give other drivers enough time and distance to slow down and avoid you.

✓ **Make sure you've cleared the intake and exhaust areas.** Your car needs to breathe so you can breathe. That means keeping the cabin air intake, engine air intake and engine exhaust free of ice, snow, mud, water and any other obstructions. Use your shovel to dig out around the exhaust pipe and remove snow. Then, start the car and check for exhaust flow. If the exhaust is leaking under the car or around the engine bay, it can get into the cabin air intake. Most cabin air intakes are around the base of the windshield. You may need to open a window to get fresh air in.

✓ **Turn off the air conditioning.** This uses energy and will deplete your fuel faster. On the other hand, leave the lights on at night to help searchers find you. Honk the horn every once in a while during daylight hours.

✓ **Be mindful of basic rules of asphyxiation.** If you feel a dull headache, weakness or dizziness, nausea or vomiting, shortness of breath, confusion, blurred vision or if someone loses consciousness, turn off the car and get yourself or them out into fresh air immediately.

✓ **Be ready to be rescued.** Have your tow strap ready in case someone happens by.

THE MOST IMPORTANT TOOL: YOUR MIND

By doing some advanced planning and taking the necessary steps to be prepared, you greatly improve your chances of survival in such situations. But, as in all survival situations, your mind is your best asset. Even if you don't have everything you'd like or need, stay calm and think about your situation to come up with solutions. Panic kills, and that's one factor we can remove from the equation right from the very beginning. ■■■



PHOTO BY THINKSTOCK

(top) If you find yourself stuck, check your car to make sure it's safe to run the engine and heater, and keep an eye on your engine temperature gauge.

(right/top) Good winter tires are absolutely essential if you want to drive in winter conditions. Buy a second set of wheels and keep your winter tires ready.

(right/bottom) Packed snow can bend your car just as easily as an obstacle. Be sure you've checked your car and that it's safe to drive before you head out.

(below) Don't stand in an impact area like this guy is doing. If you landed here, the next guy could be sliding into you at any moment.



PHOTO BY THINKSTOCK



PHOTO BY THINKSTOCK



PHOTO BY THINKSTOCK

review.02.16

"WE TEND TO GET RATHER NERVOUS WHEN WE CAN'T SEE VERY MUCH OF THE WORLD AROUND US."

Shedding **LIGHT** on a **DARK** **NIGHT**

THE VERSATILE STREAMLIGHT SIEGE AA LANTERN

By Jim Cobb

SOME SORT OF PORTABLE LIGHT SOURCE IS A NECESSITY FOR EVERY EMERGENCY KIT. Not only will a light help prevent you from running into or tripping over things, there is also a strong psychological component at work: We tend to get rather nervous when we can't see very much of the world around us.

Flashlights are great for checking out those creepy bumps in the night, of course, as well as attaching to your weapon for some aim assistance in low-light conditions. Headlamps, on the other hand, work well when you are completing tasks, such as washing the dishes or making car repairs.

For room-filling ambient light, though, a lantern just can't be beat. While candles are excellent for setting the mood, even small open flames can be dangerous.

Enter the Streamlight Siege AA lantern.

Powered by three AA batteries, the Siege AA stands under a half-foot tall, yet it will easily light up an entire living room or kitchen with a soft light free of hot spots. A polycarbonate





(left) The Siege AA Lantern incorporates a red LED that helps preserve night vision.



(above) Batteries are inserted at the bottom of the Siege AA. The compartment has a key-lock fitting that assists with loading batteries in the correct position, even while in the dark.



(left) The polycarbonate cover can be removed if more direct light is needed, and the clear enclosure that houses the electronics ensures the unit is watertight with an IPX7 rating.

cover protects the powerful LEDs while also eliminating glare. However, it can be quickly removed, should a more direct light be needed.

There are several illumination settings, making the Streamlight Siege very versatile. It goes from 200 lumens on high to 100 on medium to 50 on low. The lantern also has two settings with a red light, a steady or a pulsing SOS signal. (Why red? Red light won't affect your night vision.)

Each setting is accessed by cycling through the power button, located on the front of the lantern. To switch between white and red requires the user to hold the power button down for a second or two. The button lights up with a green glow when the lantern is powered on. This color will change as the batteries are drained, going from green to yellow to red.

Battery life is always an issue with portable lights, and even energy-saving LED bulbs will drain a battery over time. At its highest lumen output, the Siege will run about seven hours on fresh batteries. Dial it down to the low setting, though, and the life increases to over a day and a half. And the SOS setting will remain lit up for almost two full weeks.

The power button is recessed, preventing it from being accidentally powered on. This also makes it easy to find it in the dark. When you

“FOR ROOM-FILLING AMBIENT LIGHT ... A LANTERN JUST CAN'T BE BEAT.”



(left) Even on the low setting, the Siege AA Lantern provides enough light to move around in the dark and to do general tasks.



(top-right) A spring-loaded D-clip that can be used to hang the Siege from cords, ropes, eye screws, etc. is located on the bottom of the lantern.

(above) The Streamlight Siege AA has a carry handle on top that locks up in the carry position and down in the storage position.

pick up the lantern, your thumb will almost naturally fall right near the power button.

Nevertheless, bear in mind that the run time doesn't mean this light (or any light, for that matter) will continue to pump out the same lumens the entire time. All it means is that the light will emit some illumination during the entire indicated run time. So, while it may start at 200 lumens, after a few hours, it will begin to dim. By the end of the battery life, the light might only be a dim memory of its former blazing self.

Unlike some high-powered flashlights, there are no heat issues with the Siege lantern. It can be left on, even at the highest setting, for a few hours, and the light will hardly be warm. Try that with some of the popular tactical flashlights, and you will probably need gloves on your hands when picking them up.

Realistically, however, you probably won't be leaving the lantern on for hours and hours on end. The lowest setting will probably suffice for most needs during an extended power outage, such as finding your way around the room without crashing into things or perhaps playing a few rounds of Yahtzee with the family.

Streamlight includes a handle on the top of the lantern, making it easy to hang it from a coat hook or even a picture hook on the living room wall. The company has thought of everything, including a spring-loaded D-ring on the base of the unit, which increases the options for hanging.

The battery compartment is accessed by twisting the bottom of the lantern. Inside, there is a key-shaped piece that fits into a keyhole on the underside of the bottom cover. This combines with the easy-to-remember layout for positive and negative ends of the batteries, so replacing the batteries is a cinch, even in complete darkness.

The Siege is well suited for use in rough environments. It has a rubber-coated base, which keeps it from slipping on wet or uneven



SIEGE AA LANTERN SPECIFICATIONS

Battery type	(3) AA alkaline
LED color	Red and white
Run time	7 hours (high), 15.5 hours (medium), 37 hours (low)
Output	200 lumens (high), 100 lumens (medium), 50 lumens (low)
Weight	8.8 ounces
Length	5.44 inches
Water resistance	IPX7 (waterproof to 1 meter)
Body color	Coyote
MSRP	\$48

Note: There is a carry handle on top and spring-loaded D-ring on the bottom of the Siege AA Lantern.

surfaces. In addition, it is both water and impact resistant. In fact, if you drop it into a pond or lake, it floats.

Where the Streamlight Siege AA truly shines (pun intended) is its compact size. It is fewer than 6 inches tall and weighs fewer than 9 ounces, so it will easily fit into just about any

size emergency kit and is ready to go when you need it.

The Siege works extremely well as a work light under the sink or in other confin-

ing areas that don't allow for convenient use of a flashlight or even a headlamp. The soft light emitted by the lantern won't blind you, unlike the beam of a headlamp bouncing off a shiny pipe and back into your eyes.

While a lantern will never completely replace the need for a flashlight or headlamp, the Siege AA Lantern is an excellent addition to your illumination arsenal. **ASG**

CONTACT INFORMATION

Streamlight Inc.
(800) 220-7007
www.streamlight.com

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These new RECON dual color switchback LED bulbs have 30 Amber & 30 White radial facing (180 degree) LEDs that illuminate perfectly in the chrome or black chrome reflective housing of your vehicles head lamp or tail lamp assembly.



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921 912 906 T-15 (1 Ultra High Power 3-Watt Magnified LED on each bulb)
Bullet-Style Ultra High Power 3-Watt S.M.D. Bulbs



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LED CAB ROOF LIGHTS



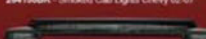
264148BK - Smoked Cab Lights Dodge 03-13



264143BK - Smoked LED Cab Light Kit Ford 99-13



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These special LED bulbs replace the halogen 154 style bulbs in all factory installed 1999-2013 Ford Superduty & Excursion cab roof lights.

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264128BK - Smoked 03-07 Ford Superduty Side Mirror Lenses

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F250 SUPERDUTY

F350 SUPERDUTY

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BILLET ALUMINUM DOOR SILLS

New Billet Aluminum Door Sills feature illumination which comes ON when the front and rear doors are opened. When the doors are closed, they return to the OFF position until the dome light switch is turned ON.

Available for SUPERDUTY, F-150, & RAM illumination: Red, Blue Finish: Brushed Aluminum, Black Anodized

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All RECON LED 3rd Brake Lights are Direct Plug-N-Play Replacements. No tools other than a screwdriver are required. In most cases installation can be completed in under 60 seconds!

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how-to.02.16

Centerfire



REDUCING CENTERFIRE LOADS FOR SMALL GAME

By James E. House

IN ANY TYPE OF SURVIVAL SITUATION, SELF-SUFFICIENCY WITH A MINIMUM OF EQUIPMENT IS ESSENTIAL. Being self-sufficient means being able to provide food, fire, shelter and mount an effective defense.

As a consequence, the necessary equipment for relatively long-term survival would normally include a firearm of some type. The intent here is not to make a case for a particular type of firearm but to show that one firearm can serve many purposes.

Historically, a vast number of explorers, adventurers, homesteaders and survivors have turned to a lever-action .30-30 (such as the Model 94 Winchester) as their only rifle. Actually, for use in a broad range of survival situations, it remains a good choice.

Versatility

A close-up photograph of a squirrel with grey and brown fur, looking towards the camera. The squirrel is positioned in the lower half of the frame. In the background, there is a faint, semi-transparent target graphic with concentric circles.

**“WHAT IF YOU
MUST GET BY
WITH JUST ONE
RIFLE FOR ALL
USES?”**

ONE RIFLE, MANY USES

Loading centerfire rifle ammunition with cast bullets was a common practice for many years. However, there is no reason that jacketed bullets cannot be loaded to velocities well below the maximum. Today, many shooters choose one rifle for small game, another for varmints and still another for animals the size of deer. Such a plethora of available calibers makes it very easy to assemble a sizeable arsenal of rifles for different uses.

But what if you must get by with just one rifle for all uses? The answer: sensible loading of different types of ammunition to take care of hunting both large and small game.

If one is forced to have only one rifle, it should be in a popular caliber, such as the .223 Remington, .308 Winchester, .30-06 Springfield or .30-30 Winchester, so that one is able to find readily available parts and ammunition. Despite their intended uses, the utility of these calibers can be greatly increased by loading the ammunition to different power levels.

For example, it is convenient to load the .223 Remington to duplicate the performance of a .22 LR, .22 WMR or .22 Hornet in addition to still having full-power loads. In the case of the .30-caliber rifles, loads can be prepared that duplicate some handgun calibers or even the .30 Carbine. Other calibers are also able to have their versatility increased by preparing appropriate ammunition. However, only a widely distributed caliber should be chosen for use when most sources of supplies have dried up.

As a result of careful loading, the usefulness of a centerfire rifle in a long-term survival situation can be increased. Older loading manuals list many reduced loads, especially those involving cast bullets. Such loads were widely used by shooters because there were far fewer calibers available, so a single rifle was loaded for multiple uses.



“... IT IS CONVENIENT TO LOAD THE .223 REMINGTON TO DUPLICATE THE PERFORMANCE OF A .22 LR, .22 WMR, OR .22 HORNET IN ADDITION TO STILL HAVING FULL-POWER LOADS.”

(above) When preparing reduced loads, follow a routine that absolutely prevents getting multiple charges in a case. One way is to insert a bullet in the case mouth immediately after the powder is loaded.

(below) Assembling effective reduced loads requires only basic reloading equipment.



PREPARING LOW-POWER LOADS

Today, there are so many calibers available that it is not necessary to get by with just a single rifle. However, because so much emphasis is placed on obtaining the highest velocity possible, some modern loading manuals no longer show reduced loads. In essence, preparing reduced loads is like taking a step backward in time—but so are many survival skills.

Preparing low-power loads for centerfire rifles is a simple and economical process. Nevertheless, there are some extremely important issues that must be kept in mind when preparing them.

Reduced loads are never prepared by simply using a much smaller charge of the same powder used to prepare full-power loads! Most modern smokeless powders operate best within a certain pressure range, and full-power loads utilize a powder charge that fills most of the case. If a small charge of such a powder were used to prepare a reduced load, there would be a lot of air space; that might cause a phenomenon known as “detonation” to occur. As a result, instead of the pressure being lower than for a full-power load, it is actually much higher, possibly resulting in a catastrophic event.

The normal practice in producing low-power loads is to use a small charge of a fast-burning powder that will give a pressure sufficiently high for optimum burning but low enough to be safe. In many instances, such a powder charge occupies only a relatively small portion of the volume of the case.

Therefore, it is imperative that care be taken to make absolutely sure that multiple charges do not get loaded in the case! One sure way to do this is to have cases in the loading block neck down and to immediately insert a bullet in the case after the powder has been dispensed. If this procedure is followed every time, there will be no way that a double (or triple) charge can be loaded. Never leave a case upright with an open mouth in the loading block!

POWDER AND BULLETS

There are numerous powders suitable for preparing reduced loads for centerfire rifles. Some of the most popular are IMR 4759, Accurate 5744, IMR 4227 and Alliant 2400. In addition, several powders normally used for loading handgun cartridges are useful. One of the most popular is Alliant Unique, a powder

(top right) With judicious loading, a .223 Remington (left) can be loaded to duplicate the performance of the .22 Hornet, .22 WMR and .22 LR.

(below right) Bullets that have been found to work well with reduced loads in .30-caliber cartridges include (left to right) the 90-grain Hornady XTP, 100-grain Hornady short jacket, 110-grain Speer round nose and flat nose hollow point, and the 110-grain Hornady Spitzer.

(inset) Three bullets that give excellent reduced loads in the .223 are (left to right) the 40-grain Hornady V-Max, 52-grain Speer TNT and 55-grain Hornady Spitzer.

(right) All these loads gave excellent accuracy in the .308 Winchester.

(bottom right) Alliant 2400 (formerly Hercules 2400) is now advertised as a powder for magnum handguns, but it has long been popular for reduced loads in rifles.

(far right) Accurate 5744 has been used to load reduced-power cartridges for many years.



that has been produced continuously for over a century. To some extent, the powder chosen depends on the power level to be achieved and the type of bullet used.

When it comes to bullet choices, the .223 Remington is somewhat more limited than the .30 calibers. Seldom are cast bullets of 0.224-inch diameter encountered, so the bullets used in reduced loads are almost always jacketed. However, such bullets with thin jackets are available for use at velocities of 2,000 feet per second or below, and they perform well.

Jacketed, plated and cast bullets are available for .30-caliber bullets. Some are intended for use in the .30 Carbines and work well at the relatively slow velocities obtained with reduced loads.

Moreover, Hornady offers a 90-grain XTP bullet that is intended primarily for .30-caliber handgun calibers, but it works very well in both the .30-30 and .308 Winchester. Hornady and Speer market 110-grain .308-inch-diameter bullets that have a short jacket on the rear portion of the bullet, and they are suitable for application in reduced loads.

Most reduced loads would be employed to take small game and pests. It is pointless to produce such loads for the .30-caliber cartridges using strongly constructed 150- to 180-grain bullets for large game, because they will not expand.

As for my needs, reduced loads for the .223 Remington involve two velocity ranges. First are the loads that run 1,200 to 1,800 feet per second (similar to .22 LR and .22 WMR loads), and both Hodgdon Titegroup and Alliant Unique have been tested in those loads. For loads in the 2,000 to 2,500 feet-per-second range (similar to 22 Hornet loads), powders tested include Alliant 2400, IMR 4759 and 4198, and Accurate 5744.

Reduced loads for the .30-30, .308 and .30-06 have been tested with several types of bullets, but three that have given excellent results are the Speer 110-grain round nose and 110-grain hollow point, and the Hornady 110-grain short jacket. Powders utilized in these loads are IMR 4759 and 4198, Alliant Unique and 2400, and Accurate 5744. When very small powder charges are used, some shooters use a filler such as Dacron, corn meal or cream of wheat to hold the powder charge close to the primer.

GREAT TEST RESULTS

The rifles chosen for testing the reduced loads were a Savage Axis .223 Remington, .30-30 Winchester Model 94, .308 Winchester Model 70 Featherweight and a .30-06 Remington Model 700.

TEST RESULTS

BULLET	POWDER	VELOCITY (A)	ACCURACY (INCHES)
.223 Remington			
40-grain Hornady V-Max	IMR 4198	2,363	0.58/0.27 (B)
40-grain Sierra BlitzKing	Alliant Unique	2,133	0.51/0.28
55-grain Hornady Spitzer	Titegroup	1,139	0.65/0.38
30-30 Winchester			
90-grain Hornady XTP	Alliant Unique	1,704	0.69/0.56
90-grain Hornady XTP	Alliant 2400	1,809	0.93/0.72
308 Winchester			
110-grain Speer HPFN	Accurate 5744	2,280	0.71/0.66
90-grain Hornady XTP	Alliant 2400	1,740	0.74/0.55
30-06 Springfield			
110-grain Speer RN	IMR 4759	2,121	0.71/0.53
110-grain Speer HPFN	Alliant 2400	2,108	0.96/0.59

A: Average velocity is for five shots at feet per second.

B: Group at 100 yards. All others are for groups at 50 yards.

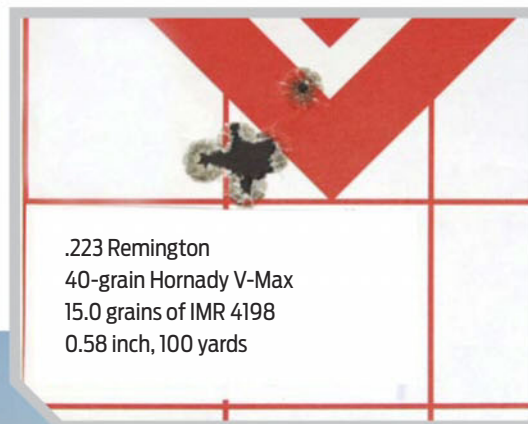
Accuracy values given as group size for five shots/best four shots.

Note: These loads were safe and reliable in the author's rifles, but neither the author nor the publisher accepts any responsibility for their preparation and use by others or typographical errors. These loads should be approached with caution.

Please consult appropriate reloading manuals for correct powder measurements.

(right) The .223 Remington with 40-grain Hornady V-Max bullets and 15.0 grains of IMR 4198 produced this outstanding 100-yard group.

(below) As the author has verified numerous times, don't sell the old lever-action rifles short.



.223 Remington
40-grain Hornady V-Max
15.0 grains of IMR 4198
0.58 inch, 100 yards

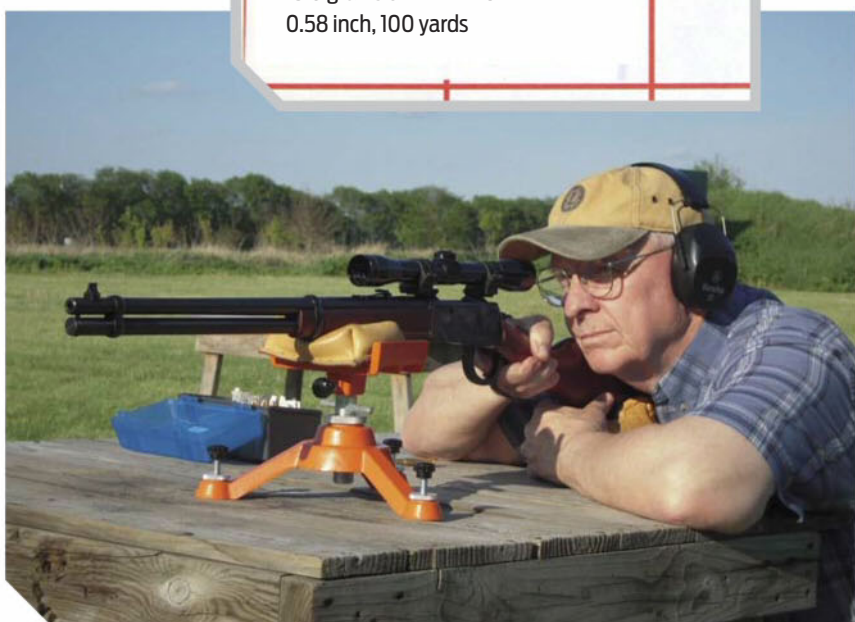


PHOTO: K-HOUSE



(above) **Reduced loads in the author's .308 Winchester greatly increase its versatility.**

(top left) **Even a .30-30 Winchester lever-action can produce groups such as this with reduced loads.**

(middle left) **A .30-06 Springfield with a reduced load that gives this level of accuracy would be an excellent choice for use on species such as coyotes.**

(bottom left) **Loaded to duplicate the power of the .30 Carbine, the .308 Winchester produced this excellent group.**

I have tested all the loads shown in the sidebar table and found that they perform well. In fact, the reduced loads gave outstanding accuracy; consequently, they would be suitable for taking small game or pests. Reduced loads clearly extend the usefulness of a centerfire rifle, and they provide valuable practice with the same rifle employed to hunt larger game.

I use a lot of reduced loads in my rifles when I don't need full power. With the quantity of powder I use, 1 pound of propellant will load hundreds of rounds.

Although some shooters might select a different rifle when they want lower power, it is often advantageous to select lower-powered loads instead. Noise, muzzle blast and recoil are much more tolerable for the shooters and less offensive to others. **ASG**

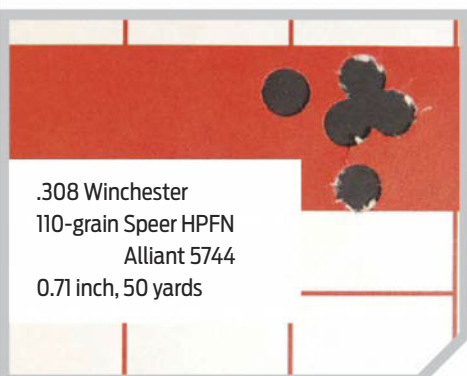
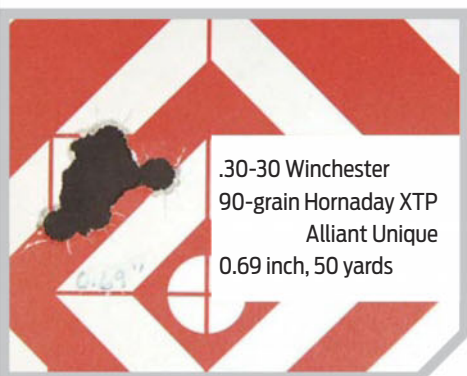


PHOTO BY THINKSTOCK

Large game may not always be available as wilderness food sources, but there's a variety of small game that can be taken with reduced-power loads from a shooter's solitary rifle.

DRESSING FOR

HOW TO AVOID "INAPPROPRIATE CLOTHING" IN WINTER WEATHER

By Larry Schwartz

MAN IS A VERY ADAPTABLE ANIMAL, ABLE TO SURVIVE IN CLIMATES FROM THE EXTREME HEAT OF THE SAHARA DESERT TO THE FRIGID COLD OF THE ARCTIC. We can do this, in large part, due to our ability to design and manufacture the right clothing for each environment. The famous British explorer, Sir Rannulph Fiennes, said it best when he commented, "There is no such thing as bad weather; only inappropriate clothing."

You, too, can handle extreme cold temperatures and winter weather if you have the right clothing and know how to use it.

A close-up portrait of a person wearing a green hooded jacket and a yellow beanie, smiling slightly. The background shows a rocky, mountainous landscape under a clear blue sky. The word "SUCCESS" is overlaid in large, white, distressed font across the upper part of the image.

SUCCESS

PHOTO BY THINKSTOCK

“SIR RANNULPH FIENNES SAID ... ‘THERE IS NO SUCH THING AS BAD WEATHER; ONLY INAPPROPRIATE CLOTHING.’”

A SYSTEM OF LAYERS

People in all parts of the world, from sherpas on Mount Everest to the mountain men who hunted and trapped in the Rocky Mountains in the 1800s, have had to stay warm in conditions of extreme cold. While the materials and style of clothing differ from one continent and one era to another, they all have one thing in common: clothing in layers that trap air between them that both insulate and allow moisture to escape. Those layers include a base layer, intermediate layer, insulating layer and a protective layer.

LAYER #1: BASE LAYER

The base layer is the one next to your skin. Its purpose is twofold. It helps you moderate your body temperature by providing a small amount of insulation that helps keep you warm in cooler temperatures—but not enough to make you hotter in warm weather. Its second function is its most important: to wick moisture and perspiration away from your skin.

Getting the moisture off your skin provides two benefits. First, it keeps you dry, which minimizes heat loss through conduction; second, it moves the moisture off your skin so that the cooling that happens when it evaporates does not occur on your skin.

There is a wide range of fabrics that make for a good base layer. Athletic equipment companies, such as Under Armour, Nike and Russell Outdoors, manufacture base layers from synthetic wicking fabrics in a variety of weights/insulation levels. These work well but can develop an odor with extended wear or a lot of sweating.

Merino wool base layers also come in a variety of weights for different levels of insulation, but their natural anti-odor properties, excellent wicking properties and inherent



(right) A base layer of merino wool or other wicking fabrics is your first line of defense against the cold, because it keeps you dry whether you are hot or cold.

(below) **Wind chill** and its ability to draw heat away from the body are why keeping dry and covering exposed skin are so important in winter weather conditions.

Wind (mph)	Temperature (°F)																		
	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times ■ 30 minutes ■ 10 minutes ■ 5 minutes

$$\text{Wind Chill (}^{\circ}\text{F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01



FIRST LITE

The Importance of a Hood

While some have a strong dislike for hoods, perhaps seeing them as extra weight or getting in the way, my experience has shown that they are highly desirable additions to any upper garment. Although hats, scarves and neck gaiters can protect your head, nothing beats a hood for keeping warm air next to your head and neck and keeping cold rain, wind or snow away from your face.

Make sure you have an insulated hood as part of your insulating layer and a non-insulated one on your outer protective layer. Straps on the exterior of the hood are designed to help you keep it snug to your head and adjust where the front of the hood sits. Pull cords around the front help keep the hood snug to trap warm air inside.

stretchability have made them a preferred fabric for many who live or work outdoors in cold weather.

LAYER #2: INTERMEDIATE LAYER

The intermediate layer serves as your first outer layer and also protects your base layer from the elements and abrasion. It provides a little more insulation, as well, because it holds in the air that is warmed by the heat radiating off your body. Basically, it is your usual everyday outer layer.

The fabrics used here are normally lightweight merino wool or regular wool in a lightweight fabric, nylon or other light synthetic fabric, or fleece. They must still be able to wick away moisture and keep it moving to the outer layers, where it can safely evaporate without cooling your body.

LAYER #3: INSULATION LAYER

The first two layers help keep the body dry by wicking moisture away from the skin, thereby protecting the body from extra heat loss from convection. The insulation layer is designed to create one or more layers of trapped air to insulate the body from any further heat loss. This can be a single layer with a large amount of insulation, such as a winter parka, or it can be a series of layers that can be put on or removed as needed, depending on the weather and your level of activity.

Insulated clothing can include an insulated vest, fleece or down shirt-jacket, woolen shirts, insulated jackets and down-insulated jackets and pants.

(left) Your intermediate layer can be a softshell jacket and pant like this pair from First Lite, the warm-up suit you wear to the gym, or a wind shirt and pants you wear to the golf course.

(below) A vest is the simplest and most versatile insulating layer there is. It is an excellent addition to your intermediate layer when just a little more warmth is needed. This example from Mountain Hardwear is filled with water-resistant down for lightweight warmth.



MOUNTAIN HARDWEAR



(above) Quilted jackets, often called “puffy” jackets, are filled with synthetic insulation or down. They provide excellent insulation and can be worn under another insulating layer or under your outer protective layer.

(right) Outer layers need to be wind and water resistant and possibly insulated, depending on the weather you are facing. They should also have a hood to help keep in the heat given off by your head and protect it from the elements.

(opposite) A hood is vital to keeping your head, neck and face warm and protects them from the elements. It also keeps the warm air inside your jacket from being pushed out by your movements.

The insulation layer can be made from a variety of materials. Wool is heavy but effective in both dry and wet climates. Synthetic is also effective in both environments; it is lighter than wool but heavier than other insulators. Fleece is a very popular insulating material, because it is synthetic, lightweight and breathable.

Down is the best insulator of the bunch—as long as it stays dry. This is its main weakness compared to the other insulators, because if it gets wet or damp, it loses its insulating ability. Fortunately for down manufacturers—and those of us who use down—most clothing makers are now using the new, water-resistant down products that have become available over the past couple of years.

LAYER #4: PROTECTIVE LAYER

The purpose of the protective layer is just that—to protect you and the other layers from the wind, snow, rain and sleet. This layer can range from a hooded rain suit jacket and pants that protect the insulating layers under it to an insulated snow suit, also with a hood, for use in more-extreme weather.

By using an uninsulated outer layer, you add flexibility to a layering system that allows you to keep your body dry and warm during different levels of exertion and temperature.

This layer is normally made from synthetic fabrics that are either waterproof themselves or have a breathable, waterproof layer. This can include nylon blends, waterproofed cotton or linen work clothes. Medium- to heavy-weight wool fabrics are also popular for a protective outer layer, because they are breathable and warm, as well as water repellent.

BUY A SYSTEM OR ASSEMBLE YOUR OWN

A number of clothing manufacturers, mainly with outdoors people as their client base, make full systems of clothing that will work for cold weather. Companies that focus on hikers, backpackers and mountain climbers offer clothing in brighter colors, while those that focus on hunters tend to feature more-subdued colors or camouflage. They all offer the latest technology, fabrics and insulation.

The product lines address each layer with one or more items from which you can choose, based on the individual manufacturers' design offerings that address their target markets for an effective, multi-layer cold-weather system. The biggest innovation is in the insulation layer. “Puffy”/quilted jackets and pants that use thin but effective modern insulators or water-resistant down have also been added to most product lines.



However, it isn't necessary to buy matching gear from a single manufacturer if you don't want to—especially if the pieces it offers don't meet your needs or your pocketbook. As long as you have pieces that perform the function needed for each layer, you can put them together from what you already have in your closet and augment them with a piece or two you need to buy.

MY PERSONAL LAYERING SYSTEM

Although I am updating my winter clothing system with newer items to take advantage of the lighter fabrics and more-efficient insulation, it is still a mix of items from different manufacturers.

Light- and midweight merino wool items make up my base layer options. The intermediate layer is a pair of lightweight cargo pants coupled with either a similar collared shirt or a windproof softshell jacket.

My insulating layer usually comprises a fleece vest and/or a long-sleeved, full-zip fleece shirt-jacket. I added a synthetic puffy shirt-jacket two years ago, along with a puffy jacket with a hood last year, to give me more flexibility with different conditions.

My outer, protective layer normally consists of a solid-color or camouflage suit that stops rain, snow and wind. If the temperature drops below freezing, I will replace the jacket with a winter parka in the protective layer and possibly add insulated pants to the protective or insulating layer.

SOME WORDS FROM THE WISE

The final part of your outer protective layer is to cover your extremities—your head, hands and feet—with clothing to keep them dry and warm. Extremities are where we lose heat the

How We Lose Heat

The important thing to understand is not how to stay warm, but how we lose heat. The human body loses heat via four significant mechanisms:

Radiation is the mechanism through which your body radiates heat from its core through the skin to the outside environment. The radiated heat warms the air next to the skin, which, in turn, helps keep you warm if the air is not disturbed. This is why you stay warm in a sleeping bag and why sleeping in very little clothing warms the sleeping bag faster than wearing layers of insulation. This always happens, and there is no way to stop it.

Convection is the mechanism via which air moving across the surface of your skin carries away the layer of air that is warmed by the heat radiated from your body. This removes that warmth from your environment—and you get colder. Wearing a windproof layer will help minimize convection from stealing heat from your personal ecosystem.

Conduction is the mechanism of heat transfer through direct contact via which heat moves through a warmer medium to a cooler medium. Because water is more dense than air, it is a better conductor of heat. Therefore, any part of your body that is wet will lose heat faster than if it were dry. You can reduce heat loss through conduction by keeping your skin dry with a moisture-wicking layer such as a base layer or a wicking intermediate layer.

Evaporation is the mechanism via which moisture changes its state from a liquid to a gas or vapor. If you remember your high school chemistry class, you know that this change of state requires the expenditure of energy, which results in a cooling effect. You can minimize this from happening by keeping your body and clothing dry and using a windshell to keep the breeze off your skin and clothing.



“EXTREMITIES ARE WHERE WE LOSE HEAT THE EASIEST, SO KEEPING THEM COVERED IS CRITICAL TO STAYING WARM.”

easiest, so keeping them covered is critical to staying warm.

As we have discussed, the trick to staying warm in cold weather, even extremely cold weather, is to use a system of layers that will keep you dry, warm and adaptable to different levels of exertion and different temperatures.

One final bit of advice is to make sure that the size you select for each item is large enough to make it a bit loose, rather than fitting snugly or even like your regular street clothes. For instance, I always buy gloves one size larger than normal for cold weather, and I always select boot or shoe sizes that will give me wiggle room. The reason for this is that tight-fitting clothing restricts the blood flow, which, in turn, reduces the ability of the body to move warm blood throughout.

Following the simple steps outlined above will definitely improve your comfort level, as well as increase your chances of survival if you're caught outside in an extremely cold environment. As the “rule of threes” goes: Shelter is the first step in a hostile environment, and part of your sheltering system is the apparel you are wearing or have available. Heeding the outlined suggestions will help ensure you aren't dressed “inappropriately” when you leave the house. **ASG**

(below) Warm boots or shoes are just as important for keeping your feet warm as a hood is for keeping your head warm. Your extremities are where you lose most of your heat, so keeping them warm is vital to keeping your whole body warm.

(right) You might have all the layers you need right in your own closet.

This picture shows a black, synthetic base layer top, a red and gray fleece jacket as an intermediate layer, and a yellow fleece vest under an insulated blue winter parka for the insulating and outer layers.



Suggested Outdoors Clothing Manufacturers

Arc'teryx/www.arcteryx.com

Eastern Mountain Sports/www.ems.com

Eddie Bauer/www.eddiebauer.com

Kryptek/www.kryptek.com

KUIU/www.kuiu.com

L.L. Bean/www.llbean.com

Marmot/www.marmot.com

Montbell/www.montbell.com

Mountain Hardwear/www.mountainhardwear.com

Patagonia/www.patagonia.com

REI/www.rei.com

Sierra Trading Post/www.sierratradingpost.com

Sitka Gear/www.sitkagear.com

The North Face/www.thenorthface.com

Western Mountaineering/www.westernmountaineering.com



JANTZ

knifemaking.com



Pattern 41 Blades

Overall Length: 7 5/8", Blade Length: 3", Width: 1", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4198	1095	Satin	24.95
J419K	1095	Black Teflon	24.95
J4127	D2 Steel	Peened	32.95
J4128	D2 Steel	Satin	32.95
J4137	CPMS 30V	Peened	42.95
J4138	CPMS 30V	Satin	42.95
J4189	Damascus	Random	79.95

Pattern 42 Blades

Overall Length: 6 5/8", Blade Length: 2 5/8", Width: 7/8", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4298	1095	Satin	24.95
J429K	1095	Black Teflon	24.95
J4227	D2 Steel	Peened	32.95
J4228	D2 Steel	Satin	32.95
J4207	440C	Peened	32.95
J4208	440C	Satin	32.95
J4257	CPM154	Peened	39.95
J4258	CPM154	Satin	39.95
J4289	Damascus	Random	69.95



Pattern 44 Blades

Overall Length: 6 1/2", Blade Length: 2 1/2", Width: 1 1/8", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4498	1095	Satin	24.95
J449K	1095	Black Teflon	24.95
J4427	D2 Steel	Peened	29.95
J4428	D2 Steel	Satin	29.95
J4407	440C	Peened	29.95
J4408	440C	Satin	29.95



Pattern 45 Blades

Overall Length: 7 3/16", Blade Length: 3 1/4", Width: 1 1/16", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4598	1095	Satin	24.95
J459K	1095	Black Teflon	24.95
J4527	D2 Steel	Peened	32.95
J4528	D2 Steel	Satin	32.95
J4507	440C	Peened	32.95
J4508	440C	Satin	32.95
J4589	Damascus	Random	79.95



CAT.#	SHEATH	PRICE
KT410	Kydex	12.95
KT455	Kydex Belt Clip	9.95



CAT.#	SHEATH	PRICE
KT420	Kydex	12.95



CAT.#	SHEATH	PRICE
KT440	Kydex	12.95
KT455	Kydex Belt Clip	9.95



CAT.#	SHEATH	PRICE
KT450	Kydex	12.95
KT455	Kydex Belt Clip	9.95

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Pattern 31 Blades



Overall length 7 5/8", Blade Length 3", Blade Width 1 1/8", Blade Thickness 5/32". Bolster holes 1/8", Handle Holes 1/4", Thong Hole 1/4". Cryo Tempered.

CAT.#	STEEL	FINISH	HRC	PRICE
J3128	D2	Satin	59-61	31.95
J3148	154CM	Satin	58-59	35.95
J3198	1095	Satin	57-58	24.95
J319K	1095	Black	57-58	24.95
J3189	Damascus	Etched	58-60	99.95

Handles for Pattern 31



Contoured and textured handles for Pattern 31. Cut slightly oversized for proper fitting. More handle options are offered online.

Handles Smooth No Texture

CAT.#	COLOR	MATERIAL	PRICE
D3149	Bl./Cocobolo	Dymondwood	16.95
G3119	Black	G10	18.95
G3129	Red	G10	18.95

Handles Basket Weave Texture

CAT.#	COLOR	MATERIAL	PRICE
M3131	Red	Micarta	16.95
G3111	Black	G10	21.95
G3131	Orange	G10	21.95
G3151	Olive Drab	G10	21.95

Rivets/Pattern 31

Torx Screw for use with the G10 textured handles. Corby rivets for use with Dymondwood handles for flush surface.

CAT.#	TYPE	ALLOY	PRICE
B451	Torx	Brass	3.95
A461	Torx	Stainless	4.95
B660	Corby	Brass	3.49
A624	Corby	Stainless	3.49

Bolsters/Pattern 31

260 brass and 410 stainless, with matching pins. 3/16" for G10 contoured handles and 1/4" for Dymondwood handles.

CAT.#	THICK	ALLOY	PRICE
K311	3/16"	Brass	6.95
K316	3/16"	Stainless	6.95
K313	1/4"	Brass	6.95
K314	1/4"	Stainless	6.95

Pattern 36 Blades



Overall length 7 5/8", Blade Length 3", Blade Width 1", Blade Thickness 1/8". Bolster holes 1/8", Handle Holes 1/8", Thong Hole 1/4". Flat ground.

CAT.#	STEEL	FINISH	HRC	PRICE
J3628	D2	Satin	59-61	31.95
J3638	CPMS30V	Satin	59-61	41.95
J3608	440C	Satin	57-58	31.95
J3698	1095	Satin	57-58	24.95
J369K	1095	Black	57-58	24.95
J3689	Damascus	Etched	58-60	74.95

Handles for Pattern 36



Contoured and textured handles for Pattern 36. Cut slightly oversized for proper fitting. More handle options are offered online.

Handles Smooth No Texture

CAT.#	COLOR	MATERIAL	PRICE
D3653	B.I./Rosewood	Dymondwood	16.95
E3601	Birdseye Maple	Wood	24.95
E3672	Desert Ironwood	Wood	39.95

Handles Basket Weave Texture

CAT.#	COLOR	MATERIAL	PRICE
G3610	Black	G10	21.95
G3630	Orange	G10	21.95
G3650	Olive Drab	G10	21.95
G3660	Blue/Black	G10	21.95

Pins/Pattern 36

Handle pins available in brass and stainless steel. (Set of 6)

CAT.#	SIZE	ALLOY	PRICE
B826	1/8"	Brass	1.99
A846	1/8"	Stainless	1.99

Bolsters/Pattern 36


Bolsters are oversized, for proper fitting and include two matching pins. Dry fit bolsters and polish front edges before peening it to the blade.

CAT.#	THICK	ALLOY	PRICE
K363	3/16"	Brass	6.95
K364	3/16"	Stainless	6.95

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(below) Out of direct sunlight, the fiber-optic sight remains bright. However, even in shade, the night sights are not readily visible. They will become more apparent in low light and total darkness.



“WHILE EVERYONE MIGHT NOT AGREE ON THE CHOICE OF HANDGUN, WE MUST AGREE THAT GOOD SIGHTS ARE A REQUIREMENT FOR AN EFFECTIVE TACTICAL WEAPON.”



(left) The fiber-optic front sight is bright and useful, and the tritium sight isn't a distraction.

review.02.16

TARGET ACQUIRED!

VIKING TACTICS RAISES THE BAR FOR COMBAT NIGHT SIGHTS

By Bob Campbell

WHEN RESEARCHING THE SUBJECT OF PERSONAL DEFENSE, THERE IS A PLETHORA OF THEORETICAL QUESTIONS THAT A PROFESSIONAL MUST OVERCOME IN THE NAME OF REAL-WORLD TRAINING AND ACTUALLY SURVIVING A DEADLY ENCOUNTER. Training is key to being successful, but the little things can help, as well. While everyone might not agree on the choice of handgun, we must agree that good sights are a requirement for an effective tactical weapon.

The sights need not be target grade; in fact, fully adjustable target sights are not desirable for a service pistol. But the sights should offer a clear picture in all conditions. Since many weapon encounters occur in dim light, a means of seeing the sights in the dark is important.

As for natural or point shooting, well, I am not the instructor who will stand before a judge and tell him I taught a student to fire at another human being without using his sights. Even with fast short-range shooting, body positioning and using the front sight are important. If you cannot see the sights, you are helpless to deliver accurate fire past conversational range.

While flashlights are important, so are self-luminous iron sights. Such additions to the personal defense handgun are relatively recent. These sights consist of vials of radioactive tritium gas mounted in an ampule within an aluminum sheath that is mounted in holes drilled into the sights. The vials feature a synthetic jewel that focuses radiation into a single, glowing dot. These dots may be green, red or white, depending upon preference. They are available in different configurations from many makers and include a single front



(top/right) Viking Tactics sights feature a shelf for easy cocking on a belt or other stabilizing surface.

(above) The Viking Tactics sights did not prove likely to snag on covering garments.

(right) This is the proper sight alignment. The front dot is highly visible.





(above) Accuracy potential of the handgun-and-sight combination is excellent. The author, however, managed to pull a shot from the five-shot group.

(below) While a six-dot system appears busy at first, in practice, the Viking Tactics iron sights gave good results.

(bottom) The author found that the combination of well-designed steel sights with fiber-optic sights and tritium inserts makes for an excellent setup.

dot, three dots and the bar/dot.

Among the newest designs are the Viking Tactics Warrior sights. I recently obtained a Smith & Wesson Military and Police 9mm VTAC edition. It is fitted with the Viking Tactics sights. These sights are also available for Glock pistols and the SIG 1911; others are in development. They were designed for versatility in personal defense and competition shooting, as well.

THE REAL DEAL

When first examined, the Warrior sights have a busy look that belies their efficiency. They are not confusing when firing. Rather, they give a trained shooter every advantage. The sights are high profile and all steel. The front sight is a post with a slight taper that draws the eye to the post. The rear sight allows plenty of light between the rear notch and the front post, providing an accurate sight picture. The sights have both a fiber-optic and a tritium component.

Combined with a tall front sight and deep rear notch for conventional aiming, the setup is a versatile one. The flash sight picture in rapid draw-and-fire drills is excellent. The sights incorporate a

six-dot system with three fiber-optic inserts and three tritium vials.

The fiber-optic sights are buried deeper into the sights than most I have tried. I have seen quite a few front fiber-optic inserts take flight during firing. I would be surprised to see even a high-round-count Viking Tactics sight fail in this manner. The tritium sights ride below the fiber-optic sights.

I have tested the sights extensively. First, I used the conventional sight picture in accuracy firing. Five-shot groups of 2 to 3 inches were obtained when I fired from a solid bench rest with Black Hills Ammunition 9mm 124-grain JHP. The pistol proved accurate enough in offhand fire to ring the 8-inch steel gong on demand at 50 yards when I did my best trigger work.

Fiber-optic sights are popular for competition use (such as IDPA matches). When there is enough light to reflect on the sights, the fiber-optic sights are a boon to fast work at moderate range. The fiber-optic filament is impregnated with a fluorescing compound that reacts to light. The surrounding material does not reflect, so the light is visibly bright in most conditions. The tritium dots are set rather deeply in the sights and are not visible in daylight shooting with concentration upon the sight picture and sight alignment.

However, in dim light to darkness, the tritium becomes visible. The three-dot configuration has become the most popular among night sights. While some claim that the three dots could be misaligned, I fail to see how this could occur and have never seen it happen during a firing class. There is a slight contrast in size between the front and rear sights that would be much more evident if the front post

were on the same place as the right or left of the rear sights, so it's a non-issue.

The Viking Tactics sights

are a solid addition to any handgun. The configuration allows the use of a single handgun in target work, in competition and in personal defense. I am definitely looking forward to the sights becoming available for a wider range of handguns. **ASG**

CONTACT INFORMATION

Viking Tactics, Inc.
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REQUIRE YOU TO WORK
HARDER, PRESENTING
THE RISK OF SLIPPING
AND CUTTING YOU ..."**

wicked edge



10 MINUTES FROM DULL TO WICKED SHARP

THE WICKED EDGE FIELD AND SPORT SHARPENING SYSTEM DELIVERS A KEEN KNIFE EDGE IN NO TIME

Story and photos by Joshua Swanagon

WHEN YOU ARE IN THE FIELD, ONE OF THE MOST IMPORTANT TOOLS YOU CAN HAVE WITH YOU IS YOUR KNIFE. However, a dull knife will not only verge on useless, it will also tip the scales closer to dangerous. A dull knife will require you to work harder, presenting the risk of slipping and cutting you or overcutting due to the need for extra pressure. This can result in your knife passing through the subject matter at an uncontrollable rate and cutting any part of your body that might be in its path.

The risk of cutting yourself is always present anytime you use a knife, but cuts from dull knives have a harder time healing and will generally leave a nasty scar. However, some people do not have the expertise to sharpen their knives, nor do they always have the time to restore a knife edge by most sharpening methods.

These issues are remedied quite handily with the Wicked Edge Field and Sport sharpening system.

INITIAL SETUP

Setting up the Wicked Edge Field and Sport sharpening system was incredibly fast and intuitive. I was able to do so without looking at the instruction (I only

flipped through them afterward to be sure I had gotten it right).

The first stage of the setup is to pull out the knife-mount bracket with the alignment guide bars and find a tabletop or workbench to mount it on with the included C-clamp. Then, pull out the Angle System stone guide bars and slide them onto the alignment guide bars on either side of the mounting bracket (do not tighten the screws yet).

Next, pick the stone grit you would like to use (there are four different stones, one for each side, with four different grits ranging from 100 to 600) and slide one on each stone guide. Finally, using the provided key, secure your knife in the bracket (you can also use the depth key to ensure your knife is always at the same depth each time you mount it). That's it. You are ready to use the Wicked Edge Field and Sport sharpening system.

FINDING THE GRIND ANGLE

If you are not looking to reprofile your edge but want to maintain the factory angle



(above) The entire system is self-contained in a hard-shell carrying case with formed foam padding.

“KNIFE SHARPENING CAN BE AN ENJOYABLE AND RELAXING HOBBY AND ... WILL HELP TO ENSURE [YOUR KNIFE BLADES’] LONGEVITY AND PROMOTE SAFE KNIFE USAGE.”

or if you are new to sharpening, you will want to find the current grind angle of your knife before locking down the stone guide bars and going to work.

To do this, simply use the provided marker or one of your own and color in the edge of your knife. Be careful not to color past the shoulder of your edge bevel, because if you are using indelible marker, the ink will stay there until it finally wears off. Once you have the entire edge blacked in, gently lay one of the stones onto the edge and try to eyeball the angle.

Once you think you have an idea of the angle, lock your stone guide bar in place at that angle and lightly run the fine-grit (600) stone down the blade while simultaneously raising it up on the stone guide bar. If only the marking at the top (when looking at it in the bracket) of the edge bevel (cutting edge) is affected, then you need to adjust the stone guide bar to a lower angle (i.e., if you are at 25 degrees, try lowering it to 20) and try again.

If the marking is only coming off the lower part of the edge bevel (against the shoulder of the bevel), you will need to adjust the stone guide bar to increase the angle (i.e., if you are at 25 degrees try raising it to 30). If the entire marker coloring is coming off evenly, you are at the right angle and can set the other side to the same angle and begin sharpening.



(above) Slide the Angle System stone guide bars onto the Alignment Guide Bars on both sides of the knife mount bracket. Do not secure them yet.



(above) Slide the 400-/600-grit stones onto the two stone guide bars.



(above) Secure your knife in place in the knife-mount bracket using the included key.



(above) Set one stone guide bar to the angle you believe to be correct.



(above) Using the included marker, color the edge of your knife black.



(right) Using the fine-grit (600) stone, do a couple of test passes. If the marker is wearing off evenly, you are at the correct angle. Secure the stone guide bar on the other side at the matching angle.

LEARNING CURVE

I was really impressed with how easy it was to use the Wicked Edge sharpening system. Once I had the angle established and both sides locked in, it was just a matter of determining how dull my knife was and then selecting the proper grit to start with. The knife I chose to test the sharpening system only needed a bit of a touch-up; some of the other knives I sharpened needed some serious work.

OPERATION

The stone guide bars are specifically designed so you can glide the stones up and down on them with consistency. Simply glide the stone upward on the guide bar while rotating the stone forward (on the ball joints). Don't use too much pressure, unless you are aggressively reprofiling an edge and are

using the coarse-grit (100) stone. Generally, you will be letting the weight of the stone do the work while you apply light pressure.

Once you have done one side, do the other, alternating from one side to the other. Once you get the hang of it, you will find a rhythm and be able to achieve a nice edge within minutes, even if you need to cycle through all the stone grits—a simple matter of sliding one off, sliding the next one on and continuing.

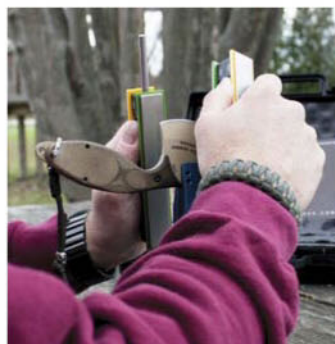
STEPS

If you are trying to bring a dull edge back, you will want to go through all the steps from the coarsest grit (100) to the finest grit (600). I recommend starting with the 100 and working it until you see that you have a consistent grind along the entire edge. Then, drop to the 200-grit and begin refining the edge, working your way all the way down to the 600-grit to begin honing it. This will also work off the burls and curls.

You can purchase additional stone kits from Wicked Edge to add to your system; these will allow you to really hone your edge to a razor-sharp, mirror finish. With its capability to expand, you can eventually have a system that allows you to achieve a professional-quality edge on your knives.

VARYING BLADE PROFILES AND STEELS

There are so many different blade profiles on the market that I decided to test the Field and Sport sharpening system on a selection of knives



(left) Glide the first stone up the bar while moving it forward along the edge of the blade. Repeat this step on the other side, continuing this process by alternating between one side and the other.



(above) It easily handled the length of the TOPS Knives Hoodlum.

to see how it performed on different blade styles. Some of the knives were fairly average in size, shape and steel type, and the system performed perfectly.

ULU/HUNTING

Because of the almost-circular shape of the ulu-style blade on my Backwoods Skinner, I wanted to test the Field and Sport sharpening system on it to see if it could follow the curve all the way

around. As I suspected, it was fine for a little over half the edge before it started to get off the angle. So, for this style of blade, I just worked on half the length of it and then repositioned it to get the other half. I was initially apprehensive that there was going to be a slight discrepancy where the two grinds meet, but I was happy to see that the two came together seamlessly.

LARGE CHOPPER

My initial belief was that the 10-inch blade of my TOPS Knives Hoodlum would present a bit of a challenge and that I would only be able to do half the length of the blade before the angle would start to get off track. However, I was surprised to find that it was able to run the entire length of the blade without any changes in the angle. I only had to reposition the blade to do the tip, because it was a little too far out to maintain the proper angle on the curve.

440C STAINLESS STEEL

As anybody who has ever sharpened stainless steel knows, knives made with this steel can be a bit more difficult to sharpen and more time consuming. I have a small 440C folder that needs fairly regular maintenance, but because of the time involved, I sometimes tend to let it go. However, when I put it in the Field and Sport sharpening system, the result was a very nice edge in just a few minutes. That, alone, is worth the price of admission!

SOMETHING WICKED THIS WAY COMES

To anyone who knows me, it is no secret that I love knives and strive to keep them sharp. Not only do I not like the risk involved with a dull knife, I also don't like the extra work required to use one. I prefer to let the knife do the work; that's its job.

Knife sharpening can be an enjoyable and relaxing hobby, and the regular maintenance of your blades will help ensure their longevity and promote safe knife usage.

For me, it can sometimes be difficult to find the time to just sit and touch up or sharpen my knives. With the quick setup and easy use of the Wicked Edge Field and Sport sharpening system, I just don't see that as an issue any more. This system has now become the center of my sharpening repertoire and will be seeing a lot of use from me in the coming years.

In addition, the portability of the system means there will be a lot of wicked-sharp hunting knives at deer camp this year. ■■■

SPECIFICATIONS

WICKED EDGE SHARPENING SYSTEM

- Eight (8) diamond stones—two (2) each in 100, 200, 400 and 600 grit
- Includes C-clamp
- Continuously variable angle adjustment from 13 to 35 degrees in 1-degree increments (26 to 70 degrees, inclusive)
- Upgraded Pro-Pack II angle system with ball joints and micro-angle adjustments
- Machined from aircraft-grade aluminum, stainless steel and Space Age composite materials
- Carrying case with custom foam inserts
- Includes an alignment guide and depth key for repeatable knife-mounting
- MSRP: \$299

CONTACT INFORMATION

Wicked Edge
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LONG

HOWA'S NEW 6.5MM CREEDMOOR HITS THE MARK

Text and photos by **Garrett Lucas**

WHEN IT COMES TO FIREARMS, I'M A MEAT-AND-POTATOES KIND OF GUY. I like the tried and true designs and calibers that have been around for a while.

That gives me a sense that all the kinks have been worked out—for the most part.

That said, you'll find me with a host of calibers such as 9mm, .45 ACP, .357 Magnum, .45 Long Colt, .22 LR, .308 Winchester, .223 Remington, 30-06 and even 45/70 Government (very tried and true). Another advantage is that these rounds are more common and easier to find than the exotic rounds today—never mind if and when TSHTF and you're trying to scrounge up ammo at the weekly barter market.

However, I still try to keep abreast of what's out there. I observe which calibers and rifles seem to be trending well in order to make sure there's nothing better floating around I don't know about. By "better," I don't mean marginal improvements in one aspect or another. To me, better means that it's common enough and good enough for me to change a whole system.

For example, there's an up-and-coming caliber known as the 6.5mm Creedmoor. No; it isn't really new, but it's not all that common yet either, especially the ammunition.

-DISTANCE SHOOTER



"... THE ACCURACY OF THE RIFLE IS SPOT ON AND QUITE SERVICEABLE FOR DIFFERENT USES AROUND THE HOMESTEAD."

I've read about the 6.5mm Creedmoor round here and there over the years but never had a chance to take a rifle in that caliber out for a drive. It's an intermediate round that offers better ballistics than similar rounds and is actually quite similar to the .260 Remington.

So, when Legacy Sports International (importer of Howa rifles) offered the opportunity to try out a new Howa package in 6.5 Creedmoor, I jumped at the chance to see if I had been missing anything. Eventually, the offering Legacy sent to me arrived, and I was pleasantly surprised by how good the rifle looked coming out of the box.

What the company sent was its M1500 model with a 22-inch barrel and a #2 contour. It

was dressed up with a Hogue stock and Nikko Stirling Gameking 4-16x44mm scope—all done up in Kryptek's Highlander camouflage. Additionally, the metal parts of the rifle were finished with Austrian-Brown Cerakote. All in all, it's a very appealing package to the eye.

With the attached scope and mount, the rifle weighs exactly 9 pounds. It has an overall length of 42.25 inches and a length of pull of 13.87 inches. Because of the size of the 6.5 Creedmoor round, the model is a short-action, bolt rifle. Another nice attribute was the inclusion of the HACT (Howa Actuated Controlled Trigger) with this model. It's a match-quality, two-stage trigger that has a light pull and breaks very cleanly. The one I received for review broke at 3.25 pounds and is just about perfect for hunting game or quarry.

AT THE PROVING GROUND

I traveled to a friend's place in North Carolina the first time I put the Howa to the test. He and I both had different rifles to shoot and review, and he's got a 500-yard range set up, as well.

Part of the allure of the 6.5mm Creedmoor is the excellent ballistic coefficient offered in the caliber. It is designed to shoot flatter and have a more effective range than a .308 Winchester. The .308 has an effective

(above) The new model Howa M1500 comes with a Cerakote finish on the gun, itself, and Kryptek's Highlander camouflage on the stock, mount and scope.

(below) Included in this rifle package is a Nikko Sterling Gameking 4-16x44mm scope dressed in the same Kryptek Highlander Camouflage as the stock.



The review sample of the Howa M1500 had a buttery-smooth action with no hangs, even with quick follow-up loading.





HOWA 6.5MM CREEDMOOR SPECIFICATIONS

Caliber: 6.5mm Creedmoor

Length: 42.25 inches

Barrel length: 22 inches

Weight: 9 pounds (with scope)

Safety: Three position

Barrel contour: #2

MSRP: \$956

“THE ONE THING THAT MAKES THE HOWA RIFLE REALLY STAND OUT IS THE SAME THING THAT WILL HELP IT DISAPPEAR ... THE CERAKOTE FINISH AND THE KRYPTEK HIGHLANDER CAMOUFLAGE ... HELP CONCEAL THE USER’S POSITION.”

tive range out to about 800 yards, but supporters claim the 6.5mm Creedmoor is effective out to around 1,000 yards.

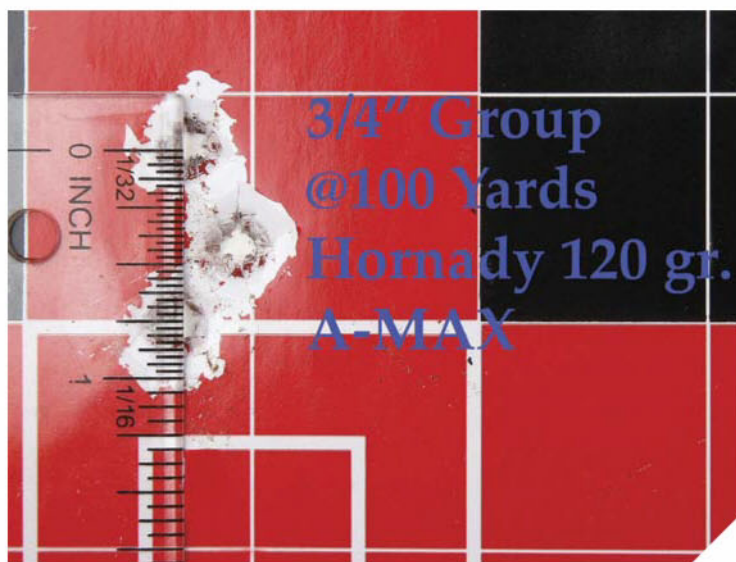
The word, “effective,” of course, is subjective. The Creedmoor round was originally designed more for target matches, although it’s starting to become more accepted as a hunting round. At 1,000 yards, whether or not the round is effective is going to depend on what you’re shooting at in the first place, along with the type of ammunition you choose.

The first thing I had to do was locate some ammunition to test drive the Howa. The 6.5 Creedmoor round has been around for about eight years, but it’s still not overloading store shelves. I spoke with several people about the

(right) As seen here, the Kryptek Highlander camouflage works well, even when the rifle is simply leaning against a tree. The “disruptive” patterns help break up the appearance of the rifle’s profile.

(below) Both the Cerakote and camouflage applications are applied to the entire rifle.





(above) Between the Hornady 120-grain and 140-grain A-MAX loads, the 120-grain version obtained the best group, with a $\frac{3}{4}$ -inch spread at 100 yards.

(below) Although it weighs 9 pounds with the scope, the rifle is comfortable to carry and balanced well. The finish on the rifle is both attractive and effective at blending into the outdoors.

rifle, and almost all of them said the Hornady loads would be the best to try, especially for match-grade rounds. This makes sense, because Hornady was the company that introduced the round to the mainstream market.

After locating the ammunition, I ordered both the 120-grain and 140-grain A-MAX loads to get a little variety (and because these were the most popular suggestions). Having little knowledge about the 6.5mm Creedmoor round, I deferred to the experience and knowledge of others when it came to ammunition selection.

The first part of our day was to test the loads for our rifles and sight them

in at the 100-yard mark with whichever load was best. Contrary to what I had heard from most folks, the 120-grain A-MAX seems to offer tighter groups from my sample than the 140-grain A-MAX rounds. However, I am not what one would call an accomplished rifle shooter, so the variance could have just been me. Also, to be honest, it was a little frustrating to shoot with the installed scope.

The Nikko Stirling Gameking scope did a fine job and provided good light transmission with a nice magnification spread (4-16X). But the scope was mounted at least $\frac{1}{2}$ to $\frac{3}{4}$ inch too high. Instead of getting a nice cheek weld, my cheek had to "hover" above the stock to see through the scope; that got to be a little fatiguing after a while.

I had my shooting partner try it out, and he had the same issue. It wasn't just me. Sure, it's a fairly easy fix by either switching out the mount or using lower rings, but then you lose the overall effect of the Kryptek finish that's applied to the scope and the base. That would be the shooting equivalent of riding down the road in a red car with a white left fender.

To overcome this issue, the user would have to send off a new set of rings or mount to a company (such as Brothers Hydrographics in Rogersville, Tennessee) that can apply the Kryptek pattern to keep everything looking right. That can cost \$100 to \$150 to get the scope height set correctly. The other option would be to get a cheek pad/riser to install on the stock—again, affecting the overall look.

That issue aside, there wasn't any denying how well the Howa M1500 shot with the 6.5mm Creedmoor rounds. Because this is a hunting rifle with a contoured barrel, we shot three rounds per group. Several groups of each load were shot, and both the 120-grain and 140-grain A-MAX rounds hung around or just below an inch during that session. However, the 120-grain A-MAX load got the best group of the day: .75 inch.

From there, we made our journey around the valley's horseshoe trail



(left) Chambered for the 6.5mm Creedmoor, the M1500 has a standard, short-throw action.

"... THERE WASN'T ANY DENYING HOW WELL THE HOWA M1500 SHOT WITH THE 6.5MM CREEDMOOR ROUNDS."

to a point where we could look to the other side to see the steel target waiting for us 500 yards away. We set up once more and shot the 8-inch steel plate for the rest of the afternoon. The *ting* of the Creedmoor rounds hitting the plate was sweet music floating throughout the valley.

With the scope's height being a bit of an obstacle, I wasn't checking for MOA accuracy at the 500-yard mark. However, making hits on the steel plate was almost easy, even for someone like me. (I live in the hills and "hollers" of the Appalachian Mountains, and rarely is there a need for a shot that long. So, long-distance shooting is fairly new to me—which further emphasizes the accuracy of this rifle and the 6.5mm Creedmoor round.)

THOUGHTS AND OBSERVATIONS

While continued practice and proper technique need to occur to improve my long-distance shooting skills, the Howa rifle in 6.5mm Creedmoor does give me a slight step up for my current skillset. This would not only come in handy for larger game hunting but would also make setting up a defensive perimeter to protect the homestead more effective if the world takes a sudden turn for the worse.

The one thing that makes the Howa rifle really stand out is the same thing that will help it disappear. In a rural setting, the Cerakote finish and the Kryptek Highlander camouflage will work well together to help conceal the user's position. That applies not only to hunting trips, but defensive scenarios, as well.

There are advantages and disadvantages to the 6.5mm Creedmoor round, especially for those with a preparedness mindset. However, those issues can be settled by wiser men than I. The point of this article is to offer an opinion on the rifle as it was designed to be used. From that perspective, I was quite impressed with the performance of the Howa M1500.

Its action was very smooth, and the trigger pull was excellent. The rifle handled extremely well for me, and the length of pull was just about perfect for my frame. With just a simple modification to adjust the scope height, I would consider this an ideal weapon to take into the field. Further, despite the scope's height, I was able to get a ¾-inch group with factory ammunition during

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the first sit-down. That's pretty impressive and reinforces the discussion about the 6.5mm Creedmoor's accuracy with the right rifle.

Howa offers a lot of value with this package. With an MSRP of just \$956, you get the benefit of the Gameking scope, Cerakote finish and the Kryptek Highlander camouflage.

More importantly, the accuracy of the rifle is spot on and quite serviceable for different uses around the homestead. If you'd like to experience the performance of the 6.5mm Creedmoor round for yourself in a balanced and easy-to-carry package, this might be the model for you. **ASG**

(left) The sample rifle received for review has a three-position safety switch to allow the user to fire, be on "safe" and be on "safe" with the bolt locked in place.

(below) The rifle came with Howa's HACT trigger system, which has two stages with almost no creep, and it breaks cleanly at 3.25 pounds.

(above) Even though the recoil of the 6.5mm Creedmoor is moderate, the butt pad makes it even more comfortable, and the 13.87-inch length of pull was a perfect fit for the author.

SOLITARY CONFINEMENT OR FORTRESS OF SOLITUDE? By Thomas J. Nardi, Ph.D.

Survivalists know they might need to undergo periods of isolation—either by choice or necessity—but at some point, circumstances could dictate being alone and separated from others.

If you are a regular reader of *American Survival Guide*, you already know some of the physical supplies you will need. Your body will require food, water and medical supplies to survive. But, to do more than just survive—to actually *thrive*—you need to have supplies for your mind. Indeed, if you are not prepared psychologically for isolation, you are not truly prepared.

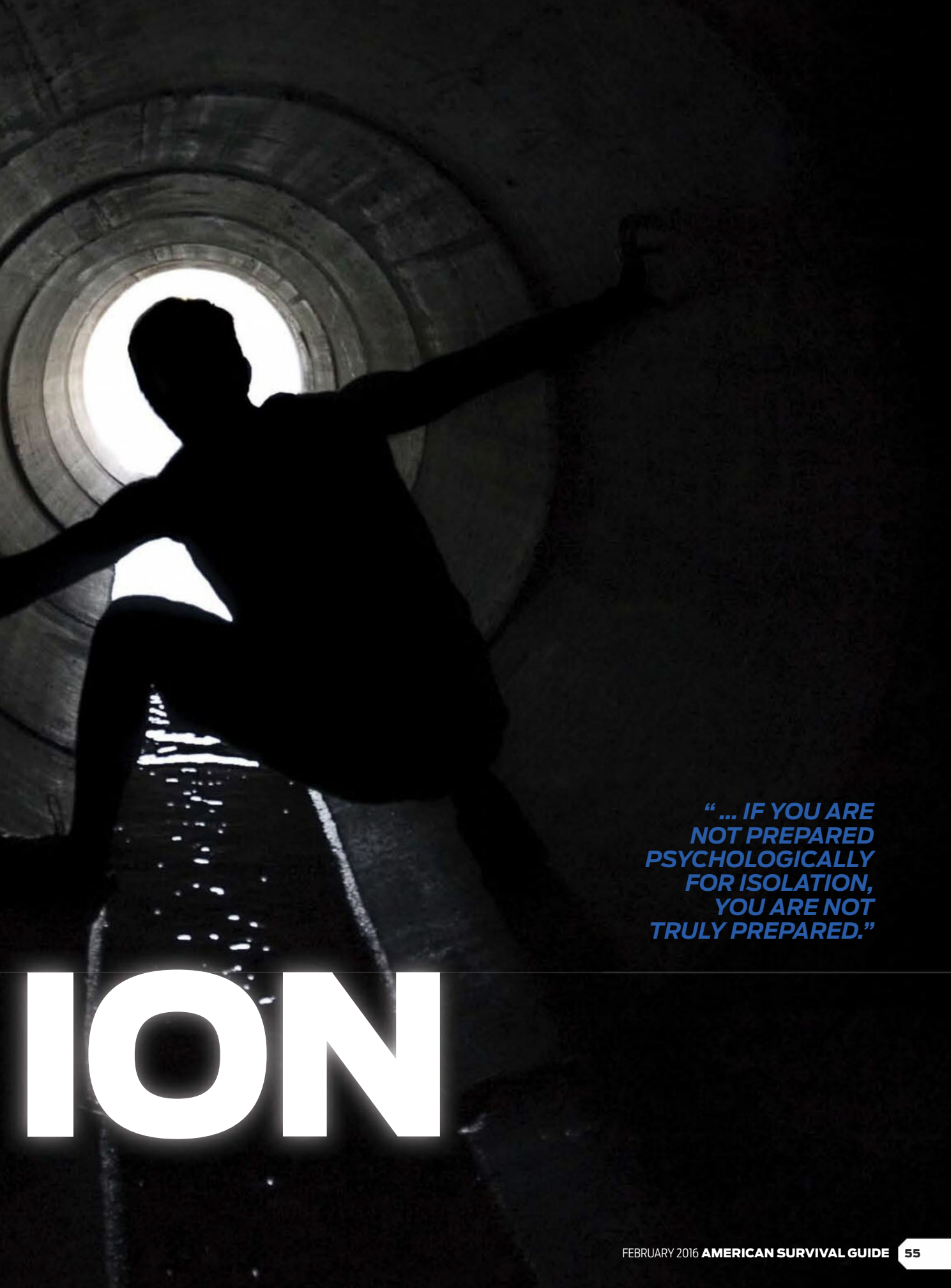
GOOD THINKING, GOOD RESULTS

The first way to prepare psychologically is to ask yourself what you think of when you hear the word “isolation.” What associations do you have with that word?

The answer might determine how well or how poorly you will deal with being isolated. Isolation is the physical state of being removed or separated from others. It is a real, objective state of being. It is also neutral. It is not, in and of itself, good or bad. But it is also a psychological state and, as such, very subjective. What we tell ourselves about isolation is what will make it a good or bad thing.

If your associations to isolation are negative, you will have a negative emotional reaction to it. If your associations are positive, you will have a positive emotional reaction. For example, if you think of isolation as a form

ISOLAT



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ION

“ISOLATION IS A PHYSICAL STATE OF BEING REMOVED OR SEPARATED FROM OTHERS. IT IS A REAL, OBJECTIVE STATE OF BEING.”

of solitary confinement, your reaction will be very negative. Solitary confinement is considered a severe form of punishment within the prison system. It punishes the mind and spirit more than the body. If you view your period of isolation as a form of punishment, you will court depression, anger, resentment and hopelessness—not the emotions you want to experience if you plan to survive!

But what if you view isolation differently? What if you remind yourself that Superman had a “fortress of solitude” to which he retreated to isolate himself from the world and its pressures? It was good enough for the Man of Steel, but can it be good enough for you? Thinking about your shelter as your personal fortress of solitude is a lot healthier than viewing it as a prison cell.

KEEP A POSITIVE ATTITUDE

First-century Stoic philosopher Epictetus taught that men are not upset by things that happen to them but by the views they take about those things. Human nature has not changed that much. To prepare psychologically for dealing with periods of isolation, be aware of the views you take about them; that is, the messages you are giving yourself.

You might not be able to control the need to seek isolation, but you can control your reactions to it. Good thinking yields good results. If you control what you tell yourself about being isolated, you control how you feel about it.



Silence Is Golden

During periods of isolation, you might be cut off from contact with others. Or, even if you are with your family, there might be a need for periods of total silence. Learn not to need to be speaking. Designate a day of silence each week to become accustomed to the quiet.



(above) Taking advantage of silence in the solitude by focusing on meditation and reframing one's thoughts is a very effective way of improving self-awareness and mitigating negative impacts on the individual's mental condition.

(left) Keeping one's mind busy—via reading books or playing board games, for example—helps fight off negative thoughts, keeps you busy and maintains a sense of normalcy.

“THINKING ABOUT YOUR SHELTER AS YOUR PERSONAL FORTRESS OF SOLITUDE IS A LOT HEALTHIER THAN VIEWING IT AS A PRISON CELL.”



Reframing your perception of isolation from a negative experience to an empowering one can change your overall mindset about your condition, resulting in a more positive outlook and staving off depression.

Telling yourself how horrible it is will only make you feel worse.

Reminding yourself that it might be bad but not catastrophic will help you feel better. A positive attitude will allow you to cope better than will a negative attitude.

What are some things you can do to keep a positive attitude? What are the self-talk messages that will improve your emotional state? Here are some suggestions.

First, remind yourself that being isolated is not a bad thing. In fact, it is a very proactive, positive choice you made to ensure your survival. Feel good about your decision. You are in control. Emotional strength, like physical strength, comes from exercising. Exercise your emotional muscles by monitoring your thoughts when faced with adversity.

Now is the time to begin cultivating a positive attitude about the everyday adversities you encounter. Stuck in traffic? Rather than complain about it, view it as an opportunity to strengthen your ability to handle frustration.

Speaking of exercise, prepare for prolonged isolation by getting into good physical shape. While in isolation, you probably won't have access to exercise equipment. Now is the time to learn simple body weight exercises you can use to stay in shape in the confined space of a shelter. An effective replacement for free weights and machines is a good set of elastic resistance bands. They take almost no room



Isolation from human interaction and even sunlight can lead to anxiety and severe depression if effective steps aren't taken to overcome these conditions.

and can replicate the full range of free-weight exercises. It is very important to maintain your strength and not allow your muscles to atrophy.

Your shelter will have food to feed your body. Prepare by also having food for your mind. Boredom can lead to depression. Books and games will stave off boredom. Remember, you might not have access to TV or computers. Games that challenge your mind are good to have on hand. It is part of your psychological preparation. Chess, checkers—any game of strategy—will help keep your mind alert and active.

Puzzle books are also a good idea and an alternative to competitive board games. Chess puzzles, crossword puzzles and hidden words can challenge you without requiring another person. They also prevent conflicts that often arise if games become too competitive.

STAY ON THE CLOCK

Our bodies are regulated by an internal biological clock that sets and influences a certain rhythm over a 24-hour period. This “circadian rhythm” tells us when to sleep, eat and wake up. Our bodies are affected by our biological needs (i.e., to eat, to sleep), but the circadian cycle is affected by environmental factors.

Parents of very young children know that it is easier to get a 3-year-old to sleep in the winter, when it is dark at 5:00 p.m., than in the summer, when it is still light at 8:00 p.m. Adults, too, are influenced by the amount of sunlight. Many



people report being more tired or down in the winter. Some even develop a seasonal depression. The lack of sunlight causes a hormonal change that triggers a hibernation reflex.

In the protected safety of a shelter, there might be no windows, and going outside might be problematic. Without the cues of the sunlight, it could be easy to lose track of whether it is day or night. This will affect your circadian rhythm.

The military recognized this problem among those assigned to isolated bases in, for example, the polar region, where the weather or “long” nights created havoc with the soldiers' internal clocks. In order to maintain a proper circadian rhythm, the military instituted forced adherence to a sleep-wake cycle. People needed to have a

(left) Being secluded away from daylight can confound the body's internal clock. To keep a regular circadian rhythm, set a fixed schedule for eating, sleeping, chores and exercise.

In the Darkness

A former inmate of the notorious Alcatraz Prison recalled being placed in solitary confinement. He was locked in a small cell in total darkness. He had heard tales of those who had quite literally gone mad in the disorienting blackness. He tore off a button from his shirt and tossed it over his shoulder. He then groped around in the darkness until he located the button. Then, he tossed it again. He made a game of it. It helped him pass the time and—more importantly—maintain his sanity. He refused to surrender to the despair of the darkness.

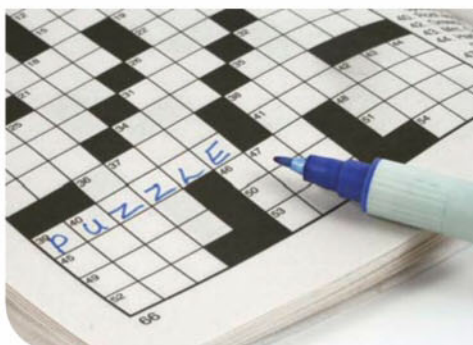
Alone or Lonely?

"One is the loneliest number ... two can be as bad as one" So said the lyrics of a popular late-1960s song by Three Dog Night.

You can feel lonely even when surrounded by people. Conversely, you can be alone and not feel lonely. It all depends on your thoughts. During periods of isolation, remind yourself that your thoughts can be your trusted companions. Your thoughts will provide all the companionship you need. Good thoughts are good friends. Cultivate them, and become comfortable with them. They will not fail you. They will be there so that you never need to feel lonely.

(above) A couple of ways to overcome depression are to get (if possible) exposure to sunlight to increase Vitamin D levels and to exercise regularly.

(right) Not only does playing board games or doing puzzles keep the individual entertained and busy, they also help keep the mind sharp for times when a crisis might hit.



set time for their activities separate from the normal cues that it was time to get up, eat, work, recreate or sleep.

It is important to adhere to a set schedule if your shelter prevents awareness of the time of day. Following a routine can help regulate your body clock and keep you physically and emotionally healthy.

IT'S YOUR CHOICE

Security comes from a sense of feeling in control and having things under control. Unfortunately, things happen that we might have predicted but still cannot prevent. We cannot choose what happens, but we can choose how to respond.

The choice is yours to make: Will you be in solitary confinement or a fortress of solitude?

ASB

ABOUT THE AUTHOR

Thomas J. Nardi, Ph.D., is a clinical psychologist and the director of the Counseling Programs at Long Island University in Orangeburg and West Point, New York.

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HAM RADIO AS A VITAL PART OF SURVIVAL PREPS By Jim Jeffries

ON MARCH 2, 2012, THE TOWN OF HENRYVILLE, LOCATED IN SOUTHERN INDIANA, WAS ALL BUT WIPED OFF THE MAP BY AN EF4 TORNADO. ABOUT AN HOUR LATER, A SECOND TORNADO—THIS ONE A MILDER EF1—FOLLOWED THE SAME PATH, HITTING THE ALREADY DEMOLISHED TOWN.

The storm destroyed the infrastructure in the area, cutting off all connections to the outside world. Miles of utility lines vanished; cell phone towers were gone; and telephone land lines were down over most of the area. The 800 MHz public service radio system used by law enforcement, fire and emergency services personnel was not accessible in most of the area and was severely overloaded where it did work.



Minutes after the storms had passed, local amateur radio operators, also known as “hams,” arrived with their mobile and portable radio stations and immediately went into action re-establishing communications. In places they couldn’t access with their vehicles, they ventured on foot and used handheld radios to assist in searching for victims, providing damage reports and relaying information to emergency management officials.

For many days after the storm, hams were still actively passing messages and providing effective communications until the infrastructure could be rebuilt. The number of lives that were affected in positive ways by these volunteer radio operators and the equipment purchased and maintained by them is immeasurable.

Events like this occur multiple times every year and, each time, ham radio operators volunteer to establish communications with the outside world. Catastrophic events like the Henryville tornados prove the importance of being able to rapidly and effectively establish communications during and after disasters.

HAM LICENSING PROCEDURES

Ham radio operators in the United States are licensed by the Federal Communications Commission (FCC) and must pass a written exam to earn their licenses. Different levels, or classes, of licenses are available, with higher classes granting more operating privileges. An increased technical knowledge is required for the higher classes, and a good grasp of electronics is helpful. Basic math skills are necessary for all levels of licensing, but knowledge of Morse code is no longer required.

License study manuals allow prospective hams to prepare for the written exam, and several smartphone apps, as well as websites, are available for taking practice exams that include all the

“EVENTS LIKE THIS OCCUR MULTIPLE TIMES EVERY YEAR AND, EACH TIME, HAM RADIO OPERATORS VOLUNTEER TO ESTABLISH COMMUNICATIONS WITH THE OUTSIDE WORLD.”

Four Regions of Radio Frequency Spectrum

Mid frequency (MF)

High frequency (HF)

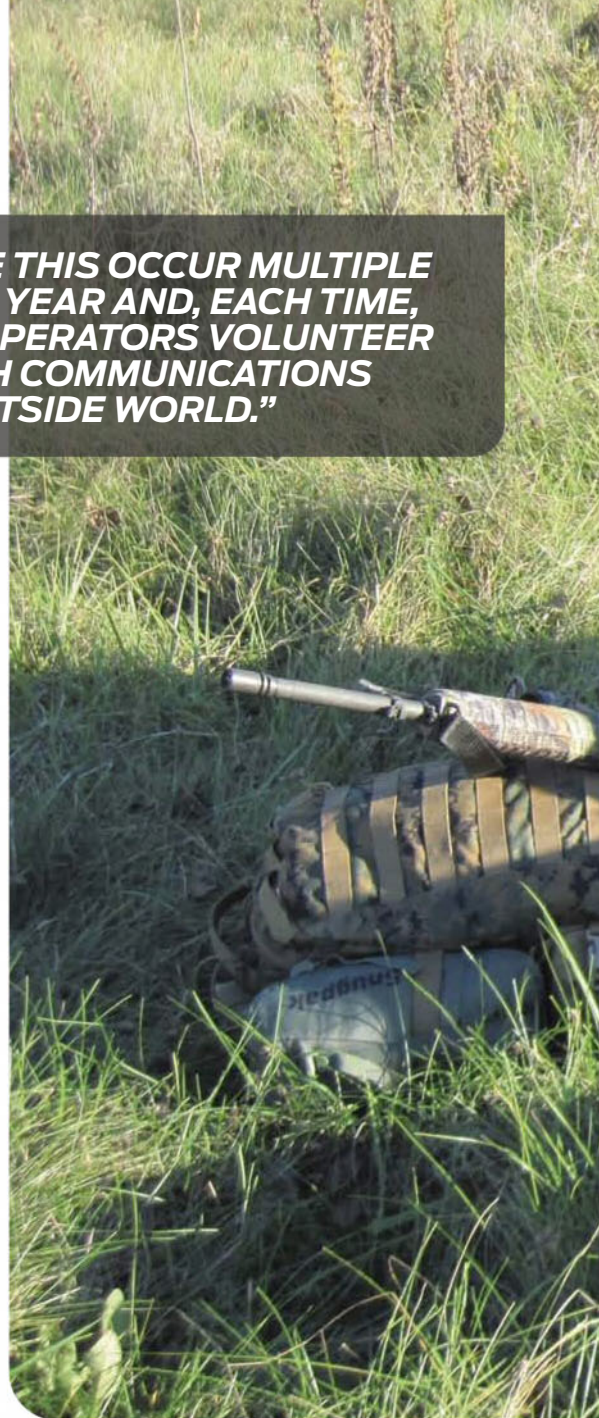
Very high frequency (VHF)

Ultra-high frequency (UHF)

(right) During a field training exercise, teams practice their skills to shoot, move and communicate. Using handheld radios on the 2-meter band, the teams can coordinate movement to the objective.

(below, left) Although a long-standing part of the ham operator’s tool kit, knowledge of Morse code is no longer required to obtain a license.

(below, right) Real-time information from on-scene assets can be critical. HF radios allow that information to be sent and received from hundreds of miles away.





questions and answers for the different license exams. Qualified licensed hams known as “volunteer examiners” administer the actual exams.

Upon passing the exam, documentation is sent to the FCC, which then issues the license grant and call sign to the operator. Once the call sign has been issued, the new ham is permitted to transmit on all permitted frequencies according to the license class.

License upgrades are performed in the same manner but take effect immediately upon a successful exam. (More information on exam locations and schedules, as well as study manuals, can be found on the American Radio Relay League’s website: www.arrl.org.)

The three license classes are technician, general and extra. The entry-level technician license grants the least operating privileges and mainly allows access to the local and regional communications frequencies. General and extra license holders have privileges to operate on additional amateur frequencies, with some portions reserved only for the higher (extra) class. These two higher-level classes hold the potential for true global communications.

MODERN HAM EQUIPMENT

A license is not required to purchase amateur radio equipment or to listen to communications between hams, but it is an absolute must to legally transmit on any of the amateur radio frequencies during non-emergency conditions. In a true emergency—licensed or not—calling for, or responding to, a call for help on any frequency is permissible.

In the infancy of amateur radio, many hams had to make their own equipment using parts from other radios or appliances to make separate

transmitters and receivers. Alternatively, they relied on military surplus equipment. Today's hams, however, have many choices of commercially manufactured transceivers, antennas and other gear required for effective, reliable communications.

A typical amateur radio station today might consist of two or three radios covering the many different bands, or frequencies, available to the operator. Additional equipment, such as a personal computer, may be connected to the radio to allow capabilities beyond voice communication. Sending files, images and even television are all possible via ham radio.

One of the great aspects of amateur radio is the lack of dependency on grid power. This independence means the ham can operate wherever an antenna can be put up, such as a deserted island, mountain top or a ship on the ocean.

Most modern ham radio equipment is designed to be powered from a 12-volt DC source, making it possible to use a simple automotive battery for power. Using solar panels to keep batteries charged is a common practice among hams, but wind and even small-scale hydroelectric generators can be utilized to provide power.

BAND SPECTRUM

While this is not intended to be a technical article, a basic idea of how radio waves at different frequencies in the radio spectrum behave is necessary to appreciate why amateur radio is so much more effective than all other available radio services.

The spectrum is broken down into different regions, four of which are important to amateur radio communications: mid frequency (MF), high frequency (HF), very high frequency (VHF) and ultra-high frequency (UHF). The different radio services are allocated specific frequency ranges within these regions. Each allocation is referred to as a "band."

Each service is required to stay within the allocated band limits to prevent interference with other services. A band is usually named for the service to which it is assigned, such as the "AM broadcast" band or the "citizens band" for CB radio service. For amateur radio bands, the name is derived from the approximate radio wavelength (the distance a radio wave travels during one complete cycle) of the lowest frequency in the

band. For instance, in the "40-meter" band, the wavelength is about 40 meters in distance. All ham bands follow this naming convention.

Mid frequencies in the United States include the AM broadcast and 160-meter amateur radio band. Radio waves in this region can go very far—sometimes completely around the planet—but are very susceptible to atmospheric noise interference from distant thunderstorms and other sources of static.

The high frequency region includes more than half a dozen amateur radio bands. This is the "meat and potatoes" region, so to speak, of the amateur radio world. Here, two-way communications can cover vast distances at incredibly low power levels but are dependent upon the upper atmosphere to bounce them back down to the surface. Constantly changing conditions in the ionosphere determine the bands that work best at a given time or direction.

Citizens band radio frequencies are found in the upper HF region, explaining why "skips" can sometimes go for thousands of miles on occasion—making for surprisingly faraway contacts—but are much too infrequent to be considered for dependable long-range communications.

Holders of general and extra class licenses are permitted to operate on allocated bands spread throughout the HF region, so finding a frequency that will reliably maintain contact is almost guaranteed. When conditions change, causing one band to fade, a different band can be used.

Radio communication in the VHF region is generally considered "line-of-sight," meaning the



(above) The author's station provides local, regional and global communications capabilities, all with no reliance on infrastructure.

(top right) The high-frequency radio is able monitor all signals from below 300 kHz to above 50 MHz. Most amateur radios are programmed to transmit only within the ham bands.

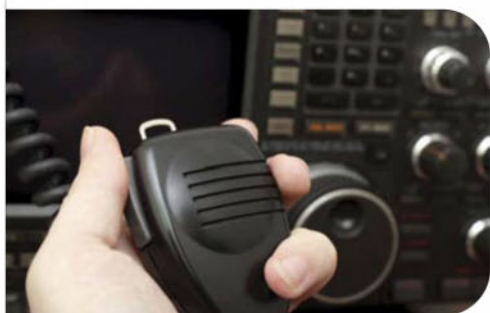
(bottom right) This VHF radio can be used as a base station, as well as portable or mobile. When transmitting on high power (75 watts), it draws more than 20 amps; some batteries might not be able to provide that much current.



"AS WITH ANY SURVIVAL SKILL, COMMUNICATIONS REQUIRES PRACTICE TO DEVELOP PROFICIENCY BEFORE IT IS NEEDED."

(right) Transmitting from a concealed position, a team member makes a scheduled radio check-in. The higher-power output capability of the mobile 2-meter transceiver in the pack provides communications far beyond the range of handheld radios.

(below) Having a communications system that can be maintained off the grid is a significant asset for the survivalist needing to contact other groups and stay updated about outside events.



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antennas must be able to “see” each other. Typical VHF two-way mobile contacts can range anywhere from 10 to 50 miles, depending on terrain and other factors. Throughout our nation, amateur radio “repeaters” have been installed to overcome (to an extent) the inherent range limitations. (A repeater is an electronic device that receives a weak or low-level amateur radio signal and retransmits it at a higher level or higher power so the signal can cover longer distances without degrading.)

These repeaters are owned and operated by individual hams or ham clubs and can cover very large areas. Normally, the utility grid powers them, but during a power outage, many repeaters rely on battery or generator backup power to keep them working. However, they should not be counted on for continued operation in a disaster or extended power failure.

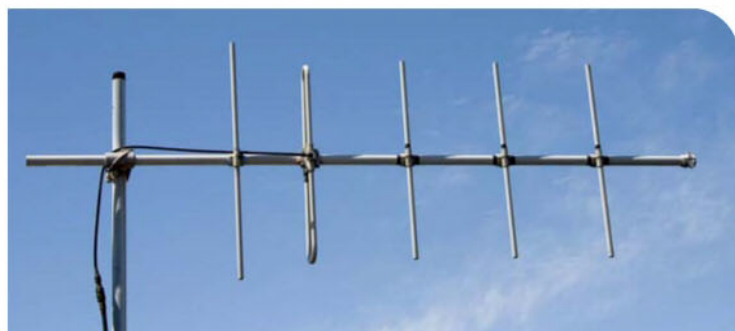
The 2-meter band could be considered the most popular VHF band, because it is so easy and affordable to put a good radio and antenna on just about any vehicle—even a bicycle! There are more repeaters dedicated to 2 meters than any other band, and it is common to have several independent repeaters in heavily populated areas. In many cases, a repeater site might provide service to more than one amateur band.

The 6-meter band is in the lower portion of the VHF region and can sometimes make surprisingly long-distance contacts—coast to coast



(left) Repeater stations are set up by individuals or clubs to help facilitate longer-range communications.

(below) A common antenna type used by ham operators is this directional, high-gain Yagi antenna typically used for VHF or UHF frequencies.



or beyond. However, as with CB, long-range communication is not consistently reliable.

There are several other two-way radio services in the VHF portion of the spectrum, including marine VHF, multi-use radio service (MURS), the land-mobile radio used by many businesses and more. Local emergency and public services, including police, fire, medical and utilities, use VHF frequencies extensively in rural areas, but in urban areas, most of these have been moved to higher-frequency systems.

UHF is also a line-of-sight region of the spectrum. While it is better at penetrating structures (making it a good choice for urban communications), it is more affected by heavy terrain and other obstacles, especially at longer distances. The amateur 70-centimeter band is also very popular among hams and, in many areas, repeaters exist to extend the range.

The general mobile radio service (GMRS) and family radio service (FRS) are also found in the UHF range. However, FCC regulations limit these radios to very low power and also impose other restrictions that render them not much more useful than two cans and a piece of string. (So, do not fall for the “22-mile range” claim on the packaging.)

FREQUENCY AND ANTENNAS

As already explained, different frequencies have different characteristics. Lower frequencies tend to be best for long-range communication, while higher-frequency signals tend to be line-of-sight. Remarkably, VHF and UHF frequencies are used in amateur radio for making satellite contacts (yes, hams have their own low earth-orbiting satellites) and even moon-bounce, also known as “EME” (earth-moon-earth).

For EME, the signal originates from a station on earth, reflects off the moon and returns to another station back on earth. While exciting, EME requires a high level of coordination between the distant stations, as well as some specialized equipment. Consequently, it should not be the go-to method of long-range communication (although it may have some strategic applications).

Another function of frequency is antenna size. Low frequencies require a large or long antenna, while higher frequencies allow for a much smaller or shorter antenna. This is one of the factors that make the VHF and UHF radios so easy to use in a mobile or portable configuration.

RADIOS

A handheld transceiver (HT) is usually a VHF/UHF walkie-talkie, although it may also include one or more of the HF bands. HTs are

“IN A TRUE EMERGENCY—LICENSED OR NOT—CALLING FOR, OR RESPONDING TO, A CALL FOR HELP ON ANY FREQUENCY IS PERMISSIBLE.”

perhaps the most convenient choice when it comes to local communications. Just like the mobile VHF or UHF radio installed in a vehicle, the HT can be used to access repeaters, giving it the same coverage potential as a higher-powered unit.

It can be carried clipped to a belt or slipped into a pocket, so it can go anywhere. By attaching an external antenna equipped with a magnetic mounting base, it can be used in a vehicle just like a mobile unit. A good-quality handheld transceiver belongs in every ham's go-bag.

For mobile use, a VHF/UHF radio is the common choice of hams. Some mobiles also include full capabilities on all the HF bands. Mobile radios typically have a maximum power output of 50 to 75 watts, and most models are quite rugged. Mobile radios are frequently used in base station applications and can be used portably, along with an external battery and antenna, all placed in a backpack or surplus ammunition can.

Full-featured HF radios are usually somewhat larger than a mobile radio and offer much greater capabilities, along with higher power output in the range of 100 to 200 watts. Any manner of antenna can be connected, as long as it is designed for the band or bands for which

it is to be used. Many HF radios can be used as a base, mobile or even portable radio.

HAM LICENSES—WORTH THE EFFORT

As shown in this brief introduction, there is a lot to ham radio; this is why it requires study and—more importantly—actual radio operation to fully understand how and why things work. As with any survival skill, communications requires practice to develop proficiency before it is needed. The capabilities, reliability and effectiveness of ham radio make it well worth the effort to pursue a license. **ASAP**

ABOUT THE AUTHOR

Jim Jeffries holds an extra class amateur radio operator license. He provides consulting and education in preparedness communications for Power of Three, LLC, for which he also teaches wilderness survival, land navigation and other skills.



(above) This photo was taken between Fredericksburg and Palmyra, Indiana, and shows one of the many power line towers that were reduced to scrap metal by the twister. Over a week after the storms hit, utility companies were still working around the clock to restore services to the region.

(below) Severe weather events such as tornados can create enough damage to impact the power grid and communications systems. Volunteer ham radio operators can help re-establish communications quickly.



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FIRST AND LAST RESORT

BUILDING PURPOSE-DRIVEN OVERBELTS By Kevin Estela

LATE ONE NIGHT, WHILE SITTING HALF AWAKE IN MY RECLINER WATCHING TELEVISION, I STOPPED FLIPPING THROUGH NETWORKS AND SETTLED ON THE HISTORY CHANNEL AS A WORLD WAR II DOCUMENTARY WAS BEING SHOWN. Footage of Marines and Army personnel, stationed somewhere in the Pacific Theater, was spliced together as the narrator described the harsh nature of the environment.

Given my profession as a history teacher and survival instructor, along with my family's story from this area, I was lured in. I gradually noticed a pattern of what the soldiers carried. It caught my attention.

Regardless of the environmental conditions encountered, from beachfront to jungle, the soldiers carried their pistol belt with basic personal gear. Even during

"down time," with rifles not far from reach, the soldiers retained their belt kits—even if they lost clothing items while working in the sun.

This made me think, If it worked then, why not now?

What does the modern pistol belt look like if the core components are upgraded? Is pistol-belt carry a viable option for survival-minded civilians, and how should the components of a belt kit vary depending on the scenario and tasks at hand? Keep in mind, these belt kits are meant to be worn as an overbelt on top of a standard pants belt.

UPDATING THE ORIGINAL

The World War II-era pistol belt consisted of a web belt, leather holster holding a 1911 pistol, spare canvas magazine carrier with two seven-round magazines, KA-BAR or Cattaraugus 225Q and stainless steel canteen.



“REGARDLESS OF THE ENVIRONMENTAL CONDITIONS ENCOUNTERED, FROM BEACHFRONT TO JUNGLE, THE SOLDIERS CARRIED THEIR PISTOL BELT WITH BASIC PERSONAL GEAR.”

With this load-out, a soldier had the basic equipment necessary for defense and field work. The original components were made from heavy cotton canvas. However, since then, alternate options have been developed to make this basic load much lighter and stronger.

Starting with the belt first, a pistol belt from Special Operations Equipment (SOE) was selected. This belt has a hook-and-loop and 1.75-inch Fastek buckle closure. The SOE belt has an internal stiffener to prevent the belt from collapsing while supporting the weight of the gear carried.

A Kydex holster from T4 Research for a SIG P220 with Surefire X300 weapon light was added to this rig. This pistol is preferred to the 1911 for its tighter tolerances, lack of external safety and repeat hammer-drop capability.

The updated magazine pouch is from Tactical Tailor. It features magnetic inserts that provide additional retention and flaps that can be tucked away or used as intended to prevent loss.

Replacing the KA-BAR or Cattaraugus is a Martin Knives Phoenix Survival Knife. This hollow-handled blade is designed to be used and has proven to be extremely durable in my travels and work. Small items can be stored in the handle, thereby increasing survivability and eliminating the need for tucking these items in pants pockets.



(above) The author carries a variety of assorted accessories in the leather pouch worn on his bushcraft overbelt. Frequent-use items, such as firestarters, sharpeners and cordage, should be carried this way.

Rounding out the updated belt is a canteen kit from Heavy Cover Inc. This improved kit is made of titanium and includes canteen, canteen lid, cup, cup lid and pouch, along with small, supplemental pouches on the TRU-SPEC carrier. Small essentials that don't fit inside the Martin Phoenix handle (such as a signal mirror, whistle and small headlamp, for instance) can be placed in these pockets. Luxury items (instant coffee packets, etc.) can be tucked in the pouch if there is extra room.



The Victorinox Outrider and Suunto MC-2G are essential items in a bushcraft overbelt kit.

A version of an updated World War II-style pistol belt includes a SIG Sauer P220 and Martin Knives Phoenix Survival Knife.



“THE BENEFIT OF A ‘BATTLE BELT’-TYPE LOAD-OUT IS THE ABILITY TO KEEP YOUR GEAR OFF YOUR CHEST AND BACK, WHERE CHEST RIGS, ARMOR OR PACKS WILL BE CARRIED.”

The Updated “Rogers’ Rangers” Belt Kit

If there was ever a group of soldiers who blended traditional living skills (bushcraft) and tactics, it was the Rogers’ Rangers of the 18th century. These men had standing orders to always have a hatchet, among other weapons, at the ready. They developed a reputation for accomplishing missions despite seemingly insurmountable odds. They traveled great distances to fight and were prepared for scouting missions and guerilla warfare in the upper Hudson River Valley of New York and New England.

Their gear comprised both tools and weapons. Much of the kit they carried can be copied and improved upon for the modern survivalist.

A typical Rogers’ Rangers belt kit included their cutting tools and provisions for their firearms. They carried gear in satchels, with their blanket rolls slung over their shoulders. Just like the Rangers, the modern survivalist can create a modular carry system that includes a shoulder pack, lightweight daypack and belt kit. The tools carried should be multipurpose—or they should be left at home.

An updated version of this kit blends the traditional with the modern. The belt chosen can be leather or nylon but should be sturdy enough to comfortably hold all the tools carried. One of the most unique tomahawks available is the Winkler Knives II Sayoc RnD. The front “spike” design draws heavily from headhunter tribes of the Philippines. When necessary, this tomahawk can be used effectively for hatchet duty. It can also be paired with the Winkler Knives II Madumi, which has a similar handle shape and is well suited for field-knife work.

Other gear blending the traditional with the modern that could ride on this belt kit is an updated Smith & Wesson Combat 66 revolver. This proven revolver offers the knockdown power of the .357 round that has taken down both four- and two-legged targets for years.

For hydration, an insulated Nalgene water bottle holder from Eastern Mountain Sports holding a stainless steel bottle and cup will protect your canteen in all weather conditions. A small, universal MOLLE pouch can hold smaller essential items for field use and emergency situations.

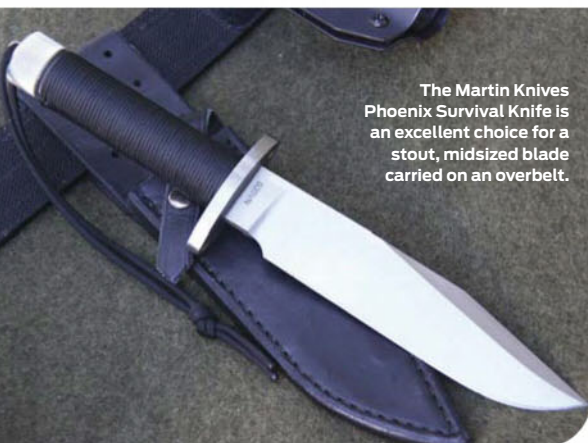
With these tools carried on the belt, the modern survivalist can effectively accomplish fieldcraft tasks and, if necessary, put up a fight. Less weight can be carried while maintaining the ability to address most needs by carrying equipment that doubles for bushcraft and defensive duty.

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hogueknives.com
1-800-438-4747



The Martin Knives Phoenix Survival Knife is an excellent choice for a stout, mid-sized blade carried on an overbelt.

(right) The Magna Double Magazine Pouch chosen for the updated World War II-style pistol belt is made by Tactical Tailor and has magnetic retention.

(below) The titanium mess kit by Heavy Cover is carried in a Best Glide Zulu Survival Kit Bag. Internal accessory pockets help keep gear organized.



The author's various leather bushcraft belts are meant for wear over heavy clothing.



With this setup, the outdoorsman has a defensive pistol with 25 rounds of ammunition, a stout field knife, canteen kit for hydration and miscellaneous kit items to address basic needs—fire making, signaling and shelter. It can be easily donned to kit-up for the field, and it is light enough to keep on all day.

BUSHCRAFT BELT KIT

"Bushcraft" is a term used to describe doing more with less and having the ability to transform natural resources into camp and field items. Ideally, the bushcrafter is not dealing with a life-or-death situation. If they do encounter one, they become either a survivor or a victim when it is all over.

This being said, the belt kit components of a bushcrafter reflect the low-stress and pressure-free characteristics of that skill set. Because no self-respecting bushcrafter would be caught using synthetic materials for their setup, this belt kit honors the traditional gear carried by Ray Mears, Mors Kochanski and Horace Kephart.

The belt chosen for this kit is a custom belt I made under the watchful eye of one of my mentors, noted survival instructor and master leather-worker Marty Simon. The belt is made of latigo, a type of leather ideally suited for luggage straps, saddles and belts due to the way it is combination treated. It is very durable and will last for generations if properly maintained. The latigo was deliberately cut wide to 1.75 inches to distribute the weight of my kit better and prevent the belt from digging in. It was also cut slightly larger than my standard belt length to accommodate wear over heavy clothing.

The first addition to this belt, the bushcraft knife, can be worn on the pants belt, but there are situations in which it might be better to wear it around the neck and shoulder or on an overbelt, as described here. In colder weather, wearing a belt knife under heavy clothing layers makes access difficult and overbelt carry preferable. The bushcraft knife chosen is the user's preferences and will likely be the start of the bushcraft kit.

Other cutting tools will be added to complete the cutting tools set. A Leatherman multitool or Victorinox Swiss Army Knife with a small wood saw will not add much weight and will provide a backup blade for small work. Generally, hatchets and axes weigh down pants belts, but on an overbelt, this weight is distributed over a wider area. A small carving hatchet such as the Gransfors Bruks Mini Hatchet will round out the tools most commonly used while in the field.

While the focus of the bushcraft kit is the selection of tools for carving and cutting, the bushcrafter can add some additional items to their overbelt to improve safety. A compass such as the Suunto MC-2G, carried in a sturdy case, and a possible pouch containing fire starters, sharpening components and some first aid items will see regular use. Items carried in pant pockets can be attached to the belt with various keepers and downward-facing D-rings.

GRAB-AND-GO SHOOTER'S BELT KIT

Should the need arise to pick up and run, having a belt kit ready for a bugout scenario will provide you with the means to defend yourself until you get to safety. The benefit of a "battle belt"-type load-out is the ability to keep your gear off your chest and back, where chest rigs, armor or packs will be carried. All of these affect mobility and increase the amount of weight carried. Taking essential items and moving them to the waistline will improve comfort when carrying more ammunition than usual.

Because this belt will support more weight than most of the other belt kits described in



(above) There are many good choices for a primary bushcraft knife carried on an overbelt. Pictured here are the Battle Horse Knives Fieldcrafter, SWC Woodlore and Gossman Knives Polaris.

(right) A small hatchet or tomahawk can be tucked by its handle inside an overbelt for short-term carry. A spare knife, such as this British Army folding knife, makes a good backup utility blade.



A padded battle-belt sits atop a loaded Pelican case that houses a rifle and shotgun.



(above) The Viking Tactics Cobra Belt has a quick-release cobra buckle for easy on and off access.

(right) An IFAK pouch holds the trauma items necessary to treat shooting-related injuries.



The bushcraft overbelt can be worn over the heaviest of garments, including this Lester River Bushcraft Boreal Shirt.



this article, a padded overbelt (in this case, the Viking Tactics Brokos Belt, combined with one of the company's 1.75-inch Cobra belts) is used to help distribute the load better. This type of belt has provisions for suspenders, if desired, but it will ride comfortably on its own on top of the hipbones—much as an internal-frame backpack waist belt. Of course, this belt will be more difficult to conceal, but when open-carry violations are not the priority of law enforcement, they probably won't be yours, either.

I have a Blade-Tech OWB holster for a Glock 17, along with a Surefire X300 weapon light and two Eagle Industries FB-Style double magazine cases for the spare pistol magazines on my personal shooter's belt. It will also support the rifle carried, so it has two ITW Fast-Mag pouches for AR-15 magazines for an additional 60 rounds of readily accessible ammunition.

Both rifle and pistol magazine pouches are open-top and stiff-body designs to provide the quickest access possible. There is also a Maxpedition Rollypoly Dump-Magazine pouch—more for general utility of carrying water bottles, energy bars, additional loose magazines or shotgun shells picked up along the way, rather than the deposit of empty magazines. As with any kit for the range or in use with firearms and sharp objects, an individual first aid kit (IFAK) pouch by HSGI is packed with the usual trauma essentials, such as a tourniquet, shears, Israeli bandage and compressed gauze.

This type of belt kit can be left fully stocked near your weapon-specific go-bags (previously described in the “Modern Minute-

Cross-Draw Carry

Large blades are easily accessed when worn cross-draw style. Attempting to draw a large blade from the same side of the body results in the blade binding in its sheath. When I carry a large blade, I do so in a cross-draw manner for easier access, much as my relatives have done in the Philippines for years. Rather than tucking my large blade or sheath in my pants belt (although this is common in the islands) or hand carrying the sheath, I use braided lengths of paracord to create a makeshift belt that I tie on when I carry a blade over great distances.

Other times, I'll use any miscellaneous strap I can find (from boating cam buckles to cinching backpack straps). Friends have used military neckerchiefs and shemaghs to do the same.

In general, the wider the strap is, the more comfortable the carry. If a larger belt or strap is used, the large blade can be worn around the waist or used bandoleer style. In cultures in which pants without belt loops are worn, tying a blade on with braided rope is common. Smaller accessory blades can be strapped to the sheath, along with firestarters and a bastard file.

Large blades are best carried cross-draw style for ease of removal. Wearing a long blade on the same side of the body as the drawing hand can bind the arm and prevent a smooth draw.



“WITH THIS SETUP, THE OUTDOORSMAN HAS A DEFENSIVE PISTOL WITH 25 ROUNDS OF AMMUNITION, A STOUT FIELD KNIFE, CANTEEN KIT FOR HYDRATION AND MISCELLANEOUS KIT ITEMS TO ADDRESS BASIC NEEDS ...”

man” article in the August 2015 issue of *American Survival Guide*) and can be put on quickly in a time-sensitive situation. With this belt kit, the emphasis is on carrying extra ammunition for the weapons carried; the go-bags you should have stored nearby can hold survival and bug-out gear.

The pistol-belt concept from World War II is easily adapted for modern-day use. It isn't the belt you're going to wear to keep your pants up, but it will keep you geared up for whatever outdoor activity or situation you're in. ■■■



(left) The Viking Tactics Brokos Belt is padded for comfort under heavy loads. The mesh padding also works well to keep the wearer comfortable in warm temperatures.



Surviving the BUG

IDENTIFYING AND TREATING RESPIRATORY INFECTIONS

By Joe Alton, M.D.

In good times or bad, you can expect respiratory infections to be some of the most common issues you'll have to handle as a medic. These illnesses are the most frequent infections seen in humans and are often highly contagious. In addition, they cause significant disability and loss of work efficiency—something you can't afford in a survival scenario.

Respiratory infections involve the nasal passages, airways and the lungs. Most are associated with viruses, although some throat infections and pneumonia can be bacterial in origin.

Such infections are spread via airborne transmission: Droplets containing disease-causing organisms (pathogens) are expelled during coughs and sneezes and enter through the nose, mouth or eyes. Pathogens can also survive for a time on nonliving surfaces such as doorknobs. Hands can, therefore, become contaminated when they touch these areas.

We classify respiratory infections as “upper” or “lower.” Upper respiratory infections involve the throat, nasal passages and sinuses. Lower respiratory infections involve the larynx (voice box), trachea, bronchi and lungs.

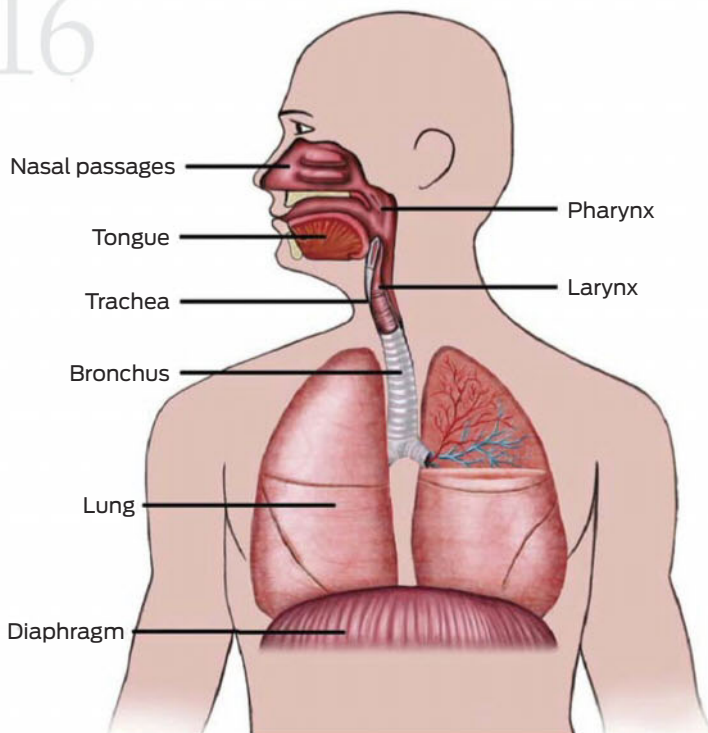
Upper respiratory infections are most common and include:

- common cold
- influenza
- throat infections (also called “pharyngitis”)
- sinusitis

Lower respiratory infections include:

- pneumonia
- bronchitis
- croup

Many of these infections have similar symptoms. In normal times, healthcare providers have an entire arsenal of lab tests, X-rays and other high-technology tools at their disposal, but what happens when a disaster takes you off the grid? How can you identify and treat the problem?



UPPER RESPIRATORY INFECTIONS

The Common Cold: Almost everyone has experienced the common cold. Symptoms usually appear one to three days after exposure to a virus, usually one in the rhinovirus family. You can expect to experience:

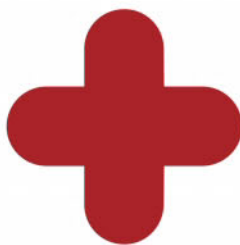
- nasal congestion
- sore throat
- coughing and sneezing
- low-grade fever
- muscle aches
- fatigue

Influenza: Influenza is one of the great killers of modern times and has caused worldwide outbreaks (also called “pandemics”). The “Spanish Flu” of 1918 is thought to have caused 100 million deaths around the globe. Influenzas, usually caused by type-A viruses, are classified by the proteins that exist on their surface. These are called hemagglutinins and neuraminidases. There are 18 different HA subtypes and 11 different NA subtypes. The swine flu, for example, is H1 N1.

Symptoms of influenza are similar to the common cold and include:

- high fever
- cough
- headache

“ANTI-VIRAL DRUGS SUCH AS TAMIFLU (OSELTAMIVIR) ARE EFFECTIVE IN DECREASING THE DURATION OF INFLUENZA, BUT ONLY IF TREATMENT IS BEGUN IN THE FIRST 48 HOURS AFTER SYMPTOMS BEGIN.”



Colds vs. Flu

With similar symptoms, a cold might be difficult to differentiate from the flu. Here are some hints:

Symptom	Cold	Influenza
fever	rare, low	common, high
headache	rare	common
nasal congestion	common	occasional
sore throat	common	occasional
cough	mild	severe
aches and pains	common	severe
fatigue	mild	severe

- severe fatigue
- severe muscle aches

Pharyngitis: Throat inflammation, also known as pharyngitis, is often part and parcel of the common cold. Most pharyngitis is viral in nature, but strep throat, also common, is bacterial. To tell the difference, put on a mask and gloves and look inside the mouth. Swollen tonsils or white spots on the back of the throat with a high fever and the absence of a cough lead you to consider a bacterial origin, especially in a child.

Near the same area exists a structure known as the epiglottis. It's essentially a flap that keeps food from going into the windpipe. Certain viruses, bacteria and even allergies can cause inflammation and swelling called “epiglottitis,” which decreases the ability of air to pass into the lungs. If severe enough, the swelling can be life threatening, especially in children. Look for fever coupled with hoarseness and difficulty breathing. A high-pitched whistle when breathing may represent “stridor,” a sign of partial airway blockage.

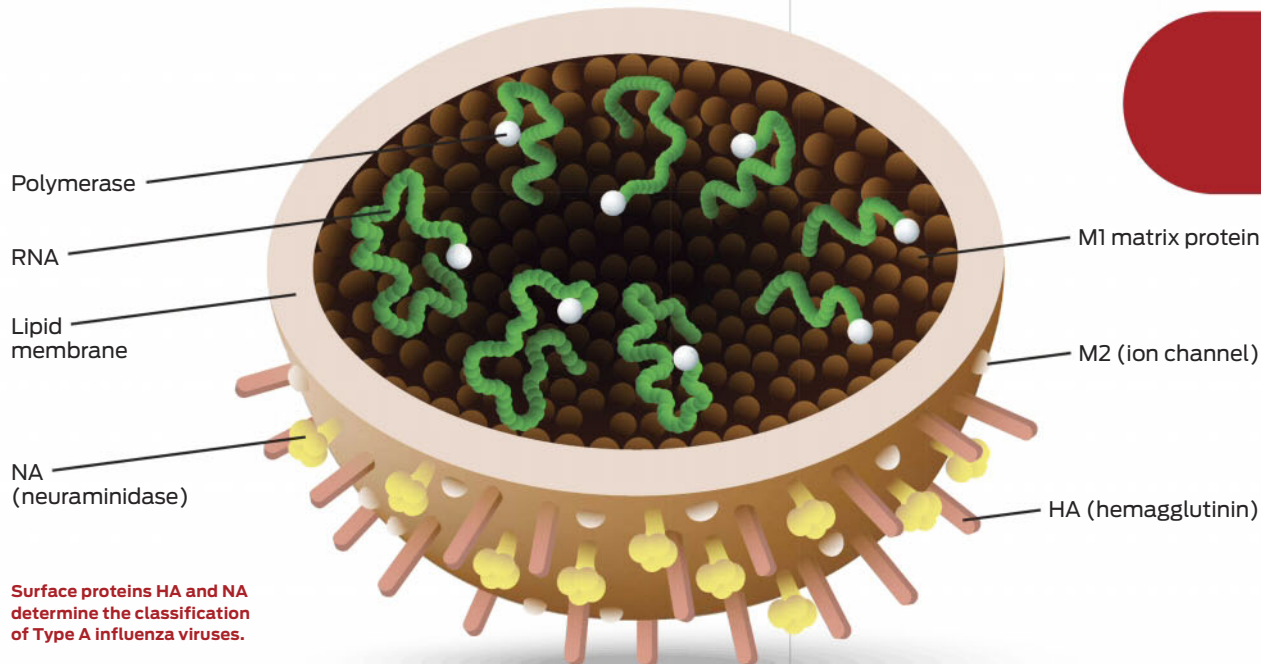
Sinusitis: Your sinuses are a group of several air-filled spaces in the skull that surround the nose. Sinusitis can be caused by viral or bacterial

infection or may be related to allergies. Common signs include thick mucus congestion (sometimes green or yellow in color), frontal headache, low-grade fever and cough. Pain may be localized over the particular sinus infected and may worsen when lying down or bending over.

TREATING UPPER RESPIRATORY INFECTIONS

You may have accumulated antibiotics in your medical storage. In the case of colds and flus, however, they will be of little help; these infections are usually viral, and antibiotics only kill bacteria. Anti-viral drugs such as Tamiflu (Osetamivir) are effective in decreasing the duration of influenza, but only if treatment is begun in the first 48 hours after symptoms begin.

Therefore, the treatment of colds and flus involves the relief of symptoms that affect the patient's function. This is especially important in survival situations, when you need your people at 100 percent efficiency.



Surface proteins HA and NA determine the classification of Type A influenza viruses.

Sweating from fevers and runny nose may cause dehydration, so keep your patient hydrated with oral fluids. Nasal decongestants, expectorants, fever reducers and mild pain meds should be used as needed. Steam inhalation may be helpful.

For viral pharyngitis, add warm salt water gargles to the above. Put ½ teaspoon of salt into 8 ounces of warm water and gargle hourly. Add some throat lozenges to your medical storage for pain relief.

Viral sinusitis can be treated with saline sprays or drops. Place a hot, moist towel on the painful areas a few times a day. Nasal decongestants and pain relievers will help. Remain hydrated to keep the mucus thin. Consider steam inhalation therapy or nasal irrigation with sterile saline using a Neti Pot.

If you see the signs of strep throat, you're probably dealing with a bacterial infection, and antibiotics such as amoxicillin, cephalexin and erythromycin will help. Bacterial sinusitis can be treated with amoxicillin or doxycycline. All these antibiotics are reasonable additions to your survival medicine cabinet to deal with bacterial infections.

LOWER RESPIRATORY INFECTIONS

Laryngitis/Tracheitis: Below the level of your throat reside the voice box (also called the "larynx") and the windpipe (also called the "trachea"). When these become infected, usually by a virus, they cause a complex of symptoms called "laryngotracheitis" or "croup." Croup is fairly common in young children and presents as a distinctive cough that sounds like a dog or seal barking. Other symptoms include "stridor" (harsh or high sounds when breathing), hoarse voice, nasal congestion, fever and difficulty breathing. These symptoms often worsen at night.

In the face of these symptoms, it's important to look in the throat and verify that there is no foreign object there and that the epiglottis isn't swollen.

Bronchitis: The bronchi (singular: bronchus) are the medium and small airway tubes that branch out below the trachea to serve the lungs. Bronchitis, once known as a "chest cold," may be either acute or chronic. Suspect it when a cough lasts more than a week or so.

In acute bronchitis, you'll see a phlegm-producing cough, wheezing, fatigue and shortness of breath, along with an occasional mild fever. The phlegm can vary in color from clear-white to yellow-green in color.

Acute bronchitis is likely to be due to a viral infection, although some bacteria might be the culprits. Unlike the common cold or most influenzas, the cough tends to linger for weeks after the rest of the symptoms disappear.

If the cough fails to go away after that time or recurs frequently over the course of time, consider chronic bronchitis as a possibility. Chronic

"IN PNEUMONIA ... AIR SACS FILL WITH FLUID OR PUS AND PREVENT OXYGEN FROM ENTERING THE BODY. PNEUMONIA MAY BE A VIRAL, BACTERIAL OR FUNGAL INFECTION."

bronchitis may be a result of long-term exposure to dust or other pollutants and may cause permanent damage to the lungs. Cigarette smoke is thought to be the most common cause.

Pneumonia: Pneumonia is an infection affecting the tissue of the lungs that absorbs oxygen from the atmosphere. Inhalation brings air to sacs in the lungs called "alveoli." In pneumonia, these air sacs fill with fluid or pus and prevent oxygen from entering the body. Pneumonia may be a viral, bacterial or fungal infection. The infection usually starts by affecting a portion of one lung (a "lobe") before spreading to the entire organ.

At first, pneumonia appears similar to the flu. Signs and symptoms may include high fever, a phlegm-producing cough, fatigue, shortness of breath and chest discomfort. When a respiratory infection fails to improve over time despite treatment, suspect pneumonia as the primary diagnosis or as a secondary infection caused by a damaged immune system. Bacterial pneumonia develops faster and appears more severe than viral pneumonia.

It's important to know that inflammation of the lungs might occur as a result of reasons other than infection, such as inhaling food, drink or vomit into the lungs. This is called "aspiration pneumonia" and can be life threatening.

TREATING LOWER RESPIRATORY INFECTIONS

Treating croup may be problematic, because your patient is usually a child, whose breathing difficulty is worsened by agitation. Respiration is made easier when the child is held upright. Steam inhalation, especially at night, seems to be helpful.

People with acute bronchitis should be on limited activities for the first few days. Drinking warm fluids and inhaling steam will loosen the phlegm and make it easier to expel. Warm compresses to the chest often relieve chest discomfort. Cough suppressants are generally discouraged unless the patient can't sleep without them. Avoid exposure to smoke or other irritants.

Although antibiotics are often given to victims of acute bronchitis, 90 percent of cases are actually viral in nature. In the uncommon bacterial cases, amoxicillin, azithromycin (Z-pak) and doxycycline are effective options. Oral steroids, such as Prednisone, help decrease the inflammation in the bronchial airways.

Pneumonia, once identified, requires total bed rest and good hydration. The cough should not be suppressed unless it is so severe that breathing is difficult, causes vomiting or prevents sleep. Oxygen, intravenous therapy and steroids are common strategies. If the pneumonia is bacterial, azithromycin, doxycycline and clindamycin are some antibiotics that might be useful to have on hand. Needless to say, some deaths will be unavoidable without modern intensive care.

“ALTHOUGH ANTIBIOTICS ARE OFTEN GIVEN TO VICTIMS OF ACUTE BRONCHITIS, 90 PERCENT OF CASES ARE ACTUALLY VIRAL IN NATURE.”

PREVENTION OF RESPIRATORY INFECTIONS

Medics can save a lot of headaches (and heartaches) by taking preventive measures to decrease the spread of infectious disease. Strict attention to hand-washing and respiratory hygiene will greatly lower the frequency of respiratory infections. Here are some factors to consider:

A quality stethoscope has loud, clear sounds, flexible tubing, angled earpieces and should be comfortable to use. Average cost: \$50.

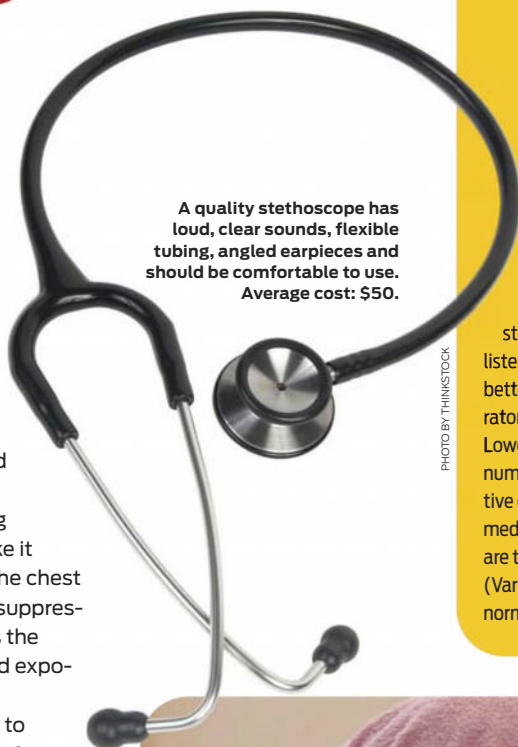


PHOTO BY THINKSTOCK

Using a Stethoscope

A medical item that is compact and should be in every medic's kit is the stethoscope. With a stethoscope, you can listen to the lungs of a sick individual and better understand the problem. Upper respiratory infections will reveal clear lung sounds. Lower respiratory infections will reveal a number of abnormal sounds that are indicative of croup, bronchitis and pneumonia. The medic must learn to recognize these if they are to function without modern technology. (Various online sources have audio files of normal and abnormal lung sounds.)



Steam inhalation therapy can often mitigate the symptoms of some respiratory conditions.

PHOTO BY THINKSTOCK



The best way to prevent infections: Wash your hands thoroughly!

PHOTO BY THINKSTOCK



(left) **Strenuous activity is likely to delay recovery and should be avoided if possible while symptoms are still present.**

(above) **Antibiotics are important for your medical storage, but are effective for only a few types of respiratory infections.**

Sick individuals should cover their mouths and noses with tissues and dispose of those tissues safely. Alternatively, a mask can be worn. If no tissue or mask is available, cough or sneeze into the upper arm or elbow instead of the hands.

Have caregivers perform rigorous hand hygiene before and after contact. Wash with soap and water for 15 seconds or clean your hands with alcohol-based hand sanitizers.

Due to droplet spread, sick persons should keep at least 4 feet away from others.


Wash down all possibly contaminated surfaces, such as kitchen counters or doorknobs, with an appropriate disinfectant (diluted bleach solution will do).

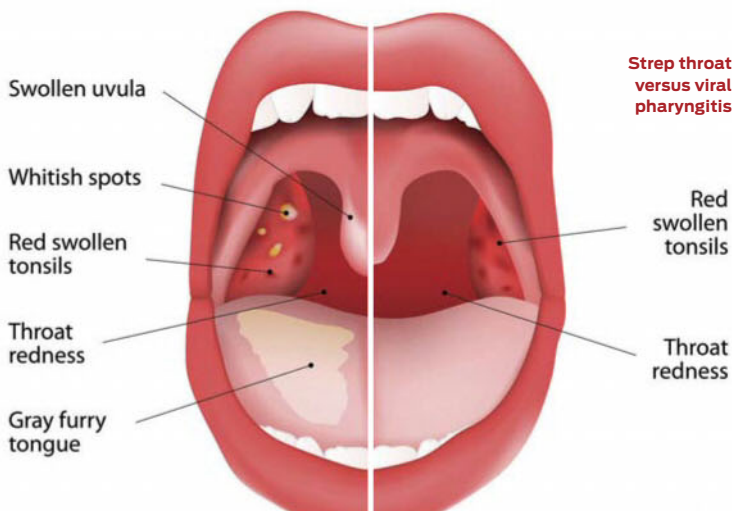
Isolate sick individuals in a specific quarantine area, especially if they have a high fever.

Medical care providers should always wear gloves when treating the sick.

Knowing how to treat medical problems such as respiratory infections will give you, as medic, a head start on keeping it together—even when things fall apart.

ABOUT THE AUTHOR

Joe Alton, M.D., is a physician and co-author of the *Survival Medicine Handbook*. 



Bacterial Infection

Viral Infection

review.02.16

AT QUEST'S END

ANGSTADT ARMS' UDP-9 RIFLE





COULD THE SEARCH FOR THE BEST GLOCK-COMPATIBLE CARBINE BE OVER?

Text and photos by **Garrett Lucas**

THROUGHOUT HISTORY, MANKIND HAS BEEN INSTILLED WITH THE DESIRE TO SEARCH, EXPLORE AND TRAVEL BEYOND THE HORIZON, EVEN INTO THE VOID OF SPACE. There are some members of our species who dedicate their lives to the completion of a particular quest, whether it's an attempt to find King Solomon's Mines, Coronado's search for Cibola or even Seracini's quest to find da Vinci's lost painting, *The Battle of Anghiari*. Some people are forever haunted by the mysteries they cannot resolve; I was one of them until very recently.

My quest for the past 20-odd years has been a modest one, and I was not alone during this trial of faith and perseverance. No, the quest wasn't for the meaning of life, although the end result could help in preserving life. My decades-long search has been for the ultimate Glock-compatible carbine, and I have recently uncovered some evidence that it might actually exist.

Yes, there are conversion kits to turn a Glock pistol into something like a carbine, which I refer to as "Franken-Glocks," and there

have been a few attempts by third-party manufacturers to make a dedicated carbine, as well. Some have been decent attempts but aren't quite what I would consider to be on a professional, heavy-action type level, and some have proprietary parts that could lead to a shortage if a repair or modification needs to be made.

Others have converted AR platform rifles, which are kind of hit-and-miss and have Glock's little, 33-round stick magazine hanging out of a wide magazine well intended for a significantly longer round, as though there is no appreciation for aesthetics. Without being too disparaging, they just didn't meet my standards for what I wanted in a carbine that utilizes Glock magazines—until I saw Angstadt Arms' new UDP-9 Rifle.

"... EVERY ASPECT OF THE FIT AND FINISH OF THE UDP-9 RIFLE IS DONE MASTERFULLY."

ANGSTADT ARMS

Located in Charlotte, North Carolina, Angstadt Arms is a relatively new company that, so far, has focused on creating firearms that use 9mm Glock magazines and receivers that can be configured for use with 9mm, .40 S&W and 357 Sig magazines. In fact, the products have already been tested with all three calibers, although the 9mm is the only one available thus far.

While the company is fairly new, the man behind the company, Rich Angstadt, is certainly not unfamiliar with firearms and the manufacturing process. The Angstadt family is well-known in the Northeast for its heritage as firearms manufacturers during the 18th and 19th centuries, with a focus on Kentucky (or Pennsylvania) Long Rifles.

The new Angstadt Arms currently offers short-barreled rifles (for those with the right paperwork), pistols and rifles in 9mm. The company uses a variety of third-party products (such as Odin Works and Magpul), which allows the installation of fixed stocks, no stocks, folding stocks, rails and so forth. This means a variety of accessories can be attached to the UDP models to meet each individual's needs.



The Angstadt Arms UDP-9 Rifle is a compact and lightweight 9mm carbine. It accepts Glock pistol magazines. It is built on the AR platform for ease of familiarity and because of the wide range of available aftermarket parts.

One primary component of the UDP-9 Rifle is the Keymod handguard engineered by Odin Works.

SPECIFICATIONS

UDP-9 RIFLE

Receiver type: 7075-T6
Finish: FDE Cerakote
Length: 32 inches
Weight: 5 pounds
Barrel length: 16 inches
Barrel type: Chrome moly
Twist rate: 1:10 inches
Components: Magpul MOE Stock and K2 Grip
Handguard: Odin Works 12-inch Keymod
Action: Semi-automatic
MSRP: \$1,499 (without sights and foregrip)

THE UDP-9 RIFLE

What I was interested in was the 16-inch barrel carbine. In fact, I appreciate the velocity bump I get from the longer barrel, and there's more real estate for accessories. The rifle I received had a Flat Dark Earth finish on the receiver and rail, with black Magpul furniture, which made for a nice contrast and a very attractive rifle. It's a very sexy piece, and every aspect of the fit and finish of the UDP-9 Rifle is done masterfully. It's as clean as you could possibly hope for and, to my eye, it was more than I expected for such a rifle.

Like its short-barreled brethren and the pistol models, the UDP-9 Rifle is built on the AR platform, so all controls are familiar to those with experience with that system. The charging handle, fire selector and magazine release all reside where you would expect them to be. Unlike most 9mm AR conversions I've seen, the magazine well has been tailored to more snugly fit Glock double-stack magazines and to make a more visually appealing package.

A FEW DETAILS

The UDP-9 is a closed-bolt, blowback-operated system, and it incorporates standard AR fire control components; thus, they are interchangeable with all other mil-spec components. The receiver is built from 7075-T6 aluminum to ensure both strength and a lighter weight.



The overall length of the UDP-9 Rifle is 32 inches with a 16-inch chrome-moly barrel and a 12-inch Keymod free-float handguard manufactured by Odin Works. This handguard includes a full-length Picatinny rail in the 12 o'clock position, with Keymod mounting points on the 3, 6 and 9 o'clock positions.

Additionally, the rifle is dressed out with a Magpul MOE stock and an MOE-K2 pistol grip, both of which add to the ergonomics and comfort of the rifle. The model that was sent to me also included Magpul's injection-molded MBUS front and rear sights, along with a Magpul Angled Foregrip. (These last two items are not included in the standard package.)

Some nice touches that add to the functional beauty of the UDP-9 Rifle include an integrated, oversized trigger guard for those shooting with gloves, a flared magazine well for quicker magazine insertion and last-round bolt hold open with an empty magazine. All these attributes lend themselves to quicker handling and getting the shooter rapidly back into action.



The UDP-9 model I received had Magpul's injection-molded MBUS "iron" sights installed. This is an additional option beyond the standard package, as is the installed Magpul Angled Foregrip seen in the picture.

The trigger pull of the UDP-9 wasn't match grade but definitely balanced well for its intended use. There is barely any pre-travel, and the trigger broke nicely at 5.25 pounds. Other than for target practice, the adrenaline is going to be pumping if you have to use this rifle, and having a couple of extra pounds of pull weight is definitely needed to help prevent a premature or accidental discharge in the heat of the moment. Of course, my adrenaline was pumping at the range anyway as I shot the UDP-9 Rifle!



The UDP-9 Rifle has an integrated, oversized trigger guard for use by gloved hands. It also includes the Magpul MOE K2 pistol grip as an extra touch.



Rather than leave the standard-size .223 magazine well, Angstadt Arms redesigned that area to snugly fit the double-stack Glock magazine to improve aesthetics. However, the magazine well is flared for easier loading.



Dressed out with the latest accessories, such as the Micro-Max B-Dot and the Streamlight TLR-2 G, the UDP-9 Rifle is set up for use in different environments—whether it's inside or out and during any time of the day.

SPECIFICATIONS

STREAMLIGHT TLR-2 G

Length: 3.39 inches

Width: 1.47 inches

Height: 1.83 inches

Weight: 4.72 ounces

Light output: 300 Lumens

Laser type: 510-530nm

Switch: Ambidextrous momentary/steady

Power: CR123 (2)

LED type: C4 technology

LED lifetime: 50,000 hours

Warranty: Limited lifetime

MSRP: \$561

STREAMLIGHT TLR-2 G

As good as it was, I decided, in my excitement, that I wanted to dress it up just a bit more for the review and to really see what this thing could do out in the field. So, I reached out to Streamlight, and the company offered its TLR-2 G combination green laser and weapon light to use for this review. New in the box, the TLR-2 G is designed to be a pistol accessory. To convert it for use with a rifle (at least easier use), you have to switch out the battery door, which includes a socket for the plug to an accessory pressure pad. These two items were included in the package, as well.

The TLR-2 G combines a 300-lumen LED flashlight with a 510-530nm direct drive green laser. At the rear of the unit is a three-position switch that allows for laser only, light only and a combination of both light and laser operation. It operates on two CR123 batteries and provides 2.5 hours of run time with both the light and the laser turned on. It will operate for 17 hours with only the laser activated. On top of all that, the unit comes with a lifetime warranty. That's as good as it gets!

A nice addition for use with the UDP-9 Rifle is the TLR-2 G combination laser/weapon light that was provided for use during this review. The unit houses a 300-lumen LED flashlight and an extremely visible green laser. The laser and light can be used independently of each other or at the same time with a flip of a three-position switch.



INSTALLING SOME GLASS

Of course, I'm going to want to run a red-dot sight on a little beast such as the UDP-9 Rifle. That's what 12 o'clock rails are for! For this rifle, I chose to use a Hi-Lux Micro-Max B-Dot optic for this review. The standard offering comes with a low, Picatinny-style mount, but because I was working with an AR platform, I ordered Hi-Lux's AR riser to elevate the Micro-Max to eye level.

The Micro-Max B-Dot runs on one commonly found 2032 battery, and Hi-Lux rates the battery life at 55,000 hours on a "medium" brightness setting. That's 6.2 years! There are 12 brightness levels, and the unit has a default setting of eight hours before it shuts off because of inactivity. That can be reprogrammed from one to 12 hours based on the user's preference.

Again, it's another item with a lifetime warranty. Cost aside, the Hi-Lux really brings quality and versatility to a sight of this type and size.

ON THE DANCE FLOOR

Up until now, it's been all about getting cleaned up and putting on our best outfits. Now, it's time to actually get to the dance! The first trip to the range was a revelation as we put the UDP-9 Rifle through its paces and observed things such as accuracy and behavior of the firearm.

The first step was to sight in the Hi-Lux Micro-Max red-dot sight. I had just gotten the AR riser a couple of days before and had everything set up and mounted on the UDP-9. I set the target at 25 yards and went back to the bench to take my first shot.

It was Federal day at the range for me: I had purchased a case of Federal Premium's American Eagle 124-grain FMJs, because I wanted to prove the reliability of the UDP-9 rifle. I also brought along a couple of MTM boxes full of 124-grain Hydra-Shok JHPs and some of Federal's hottest 9mm rounds—the 115-grain JHP +P+ (9PBLE). With that on hand, it was time to get

things rolling and dial in the Micro-Max.

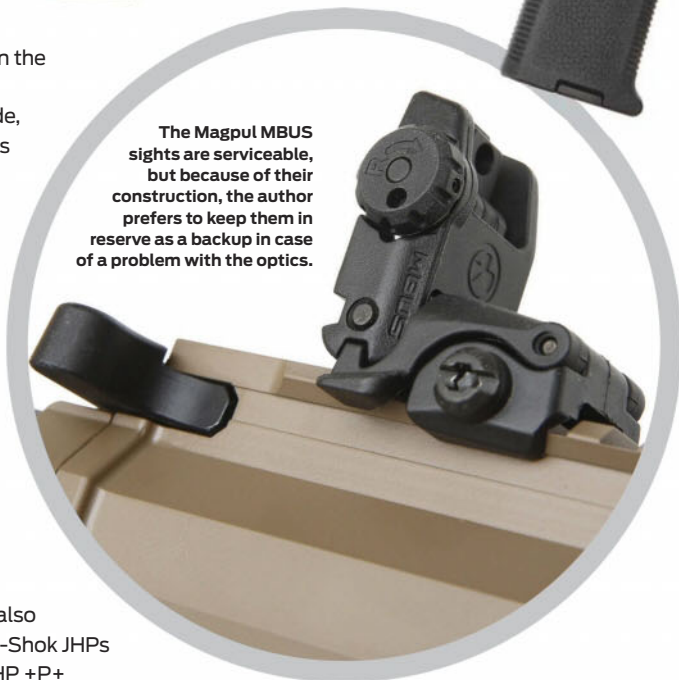
It turns out I didn't have to do a thing. I couldn't believe it. With all the variables, such as the Micro-Max's position, the AR riser's height, bullet weight and environmental factors, the first shot went dead center in the bull's-eye, and it was with the American Eagle 124-grain JHP. Surely, providence was with me.

Yes, I know; it was only 25 yards, and I was shooting a rifle, but the Micro-Max had no magnification; and I don't know if you've checked lately, but 1 inch is hard to see at 25 yards—much less at 50 yards. I had considered using a scope to test its accuracy at 50 yards and 100 yards, but I just didn't see the point. I was going to run a red-dot on it, so I decided I ought to test the rifle with the Micro-Max and see how well I could place the shots as-is.

During the first range session, it quickly became apparent that the UDP-9 liked the standard-pressure, 124-grain rounds better than the hot 115-grain +P+ rounds. The latter was no slouch but displayed the four-and-one syndrome much more than the heavier, standard pressure rounds. The 124-grain American Eagle turned in good groups at



As part of the standard package, a Magpul MOE stock is included rather than a standard AR stock.



The Magpul MBUS sights are serviceable, but because of their construction, the author prefers to keep them in reserve as a backup in case of a problem with the optics.

“... A VARIETY OF ACCESSORIES CAN BE ATTACHED TO THE UDP MODELS TO MEET EACH INDIVIDUAL'S NEEDS.”



The pressure pad for the TLR-2 G unit can be placed at the user's preferred location using screws, zip-ties or a strong adhesive strip—depending on the type of mounting location.

25 yards, with the best group coming in at a 1.3-inch spread. However, the premium 124-grain Hydra-Shoks took the blue ribbon with a .5-inch group at 25 yards from a bench rest with no magnification.

Personally, I thought that was an excellent showing, considering the caliber and shooting conditions. I then took the target out to 50 yards and tried again with the Micro-Max and the various loads. Honestly, I couldn't even see the white circle in the center at that distance. I was just trying to keep the shots in the center of the red zone around the circle. It turns out that the 124-grain Hydra-Shoks did their job again, with a group a hair over 2.5 inches while shooting off hand.

I don't fault the rifle or the ammunition for that group; that was all me. It's tough to hit what you can't see, but it was still a good enough group to take down something like a rabbit in a survival scenario and certainly good enough for defensive shooting. If one prefers, a decent scope with 4-6x magnification could be mounted, and those groups would tighten up quite a bit, but you give up that open field of view for more combat-oriented shooting.

The biggest success was the absolute reliability I enjoyed from the rifle with all three round types. With a total of 350 rounds fired during the first session, there was not one jam or failure to feed. It was just pure bliss.

A couple of the guys shooting near me tried it out, as well, and they giggled like schoolgirls while taking their turns. They were every bit as impressed as I was, and both started talking about the kinds of scenarios in which the UDP-9 rifle would excel. They were still talking through their ideas as I went back to shooting.

WHY?

Some of you might be asking why I'm interested in a 9mm Glock carbine and why I think it would be a viable weapon on certain occasions.

First, I've been buying a boatload of those 33-round magazines for the past two decades, and I need to use them in something more practical than my two G19 pistols. (I'm not starring in a John Woo movie here.)

(right) The Hi-Lux Optics Micro-Max B-Dot has a 2-MOA dot with ½ MOA adjustments, a battery life of 55,000 hours at "medium" brightness and comes with a lifetime warranty.

(below) The Hi-Lux Micro-Max B-Dot is a perfect companion to the UDP-9 rifle for precision shooting once the add-on AR riser is mounted. The Micro-Max on the AR riser allows for a lower 1/3 co-witness with the included Magpul MBUS sights.

SPECIFICATIONS

HI-LUX MICRO-MAX B-DOT

Power: 1X

Eye relief: Unlimited

Dot size: 2 MOA

Adjustments: ½ MOA increments

Ratings: Waterproof, fogproof

Battery life: 55,000 hours
(medium brightness)

Shut-off: 8-hour default (user programmable)

Warranty: Limited lifetime

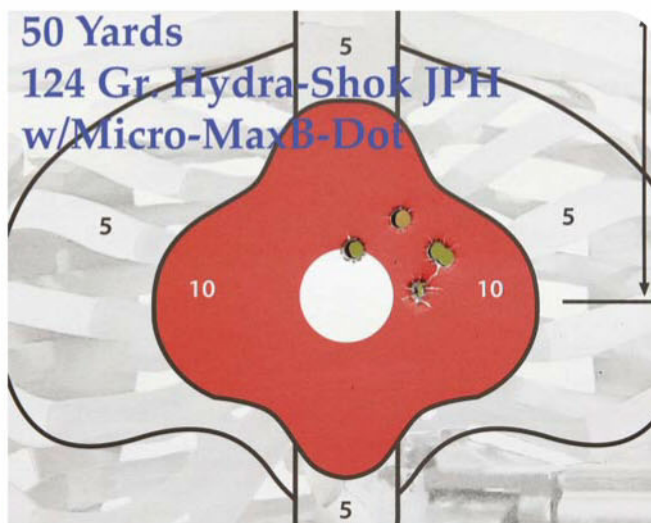




(left) In preparation for extended range time with the UDP-9 and to wring it out for reliability, the author ordered a case of Federal Premium's 124-grain American Eagle ammunition. In previous sessions, this particular ammunition has proven to be a good all-around choice for both testing and training.



(above) The best five-shot group during all sessions was .50 inch from the bench at 25 yards. This group was shot with the Micro-Max B-Dot optic while using Federal 124-grain Hydra-Shoks. Note that two rounds went through the same hole at the top left corner of the group.



(above) Rather than use an actual scope to test the accuracy of the rifle at longer distances, the author chose to use the red-dot sight at longer ranges. This helped gauge the real-world effectiveness and accuracy of the rifle when the operator is running a red-dot optic. This group was shot offhand at 50 yards.



The UDP-9 was a hit at the shooting range. A couple of fellow shooters tried out the rifle and were extremely impressed by the rifle's design and performance.

“LIKE ITS SHORT-BARRELED BROTHERS AND THE PISTOL MODELS, THE UDP-9 RIFLE IS BUILT ON THE AR PLATFORM, SO ALL CONTROLS ARE FAMILIAR TO THOSE WITH EXPERIENCE WITH THAT SYSTEM.”



(above) The UDP-9 Rifle is an excellent choice to engage targets at closer distances with a lighter and more maneuverable longarm and still offers the advantage of accepting spare magazines from a user's Glock pistol.

Logistically speaking, there's no doubting the benefit of having a firearm with a longer sight radius and a more stabilized platform that will accept magazines from your normal carry pistol. For the average person who isn't decked out in tactical gear (chest rigs, ammo carriers and leg carriers, for example) to hump around different magazines for a "battle" rifle, this is a huge advantage.

The UDP-9 will accept even the short 10-round magazines intended for the G26. So, if you have a pistol (such as the G19 or G17) with a magazine, a magazine carrier with two magazines and the UDP-9 with a magazine, you've got four magazines right off the bat that can be fired through either weapon. If you get into a situation where either one or both weapons need to be used, it only gets better if your immediate family or friends are with you and also carry Glock pistols and spare magazines.

I also believe there is a great benefit for both training and usability by children or those unfamiliar with firearms of this type. Most of us gun enthusiasts started out with a .22 of some sort, because the recoil was much lighter, and we could practice on the fundamentals before moving up to heavier calibers.

Well, the same could be done with the UDP-9 Rifle. The recoil from 9mm rounds fired by this rifle is negligible, so the training can still take place. Additionally, on a rifle like this, it will give the trainee a better familiarity of modern firearms such as the AR platform rather than a lever-action or tube-fed semi-automatic. Remember, we're thinking in terms of survival here.

At the same time, the 9mm is more potent for defense than .22 LR, and the UDP-9 Rifle only weighs 5 pounds. This system is ideal for children,



(above) The use of Magpul's collapsible MOE stock allows the length of pull to be adjusted for individual users, which is a benefit when more than one family member can use the rifle.

(right) Part of the UDP-9's appeal is its minimal recoil, making it more usable by all members of the family. Also, if more than one person in the household carries a Glock pistol, that means more spare ammunition for the rifle is available.



adolescents or people with certain disabilities who can't use or take the recoil of a heavier weapon. My stepfather had his shoulder replaced with a titanium "model," and he couldn't even handle the recoil of a .223 round. Certainly, we don't want our loved ones (especially our children) to be in a situation where they have to fight, but if something really goes sideways, I'd want them to be able to use a more-potent round than .22 LR.

PRACTICE MAKES PERFECT

I went back to the range two more times to make sure I'd challenged the UDP-9 Rifle enough to be satisfied with its performance. The second time I went, I brought a ziptop bag of random hollow-point rounds I'd collected over the last decade or so. I had almost every major brand represented in those old rounds. I had everything from 90-grain up to 147-grain rounds.

I had standard pressure loads and more +P+ loads, and there were a few rounds that had an extra-wide cup and were known not to feed too well. It didn't matter. There were about 150 random rounds in that bag, and the UDP-9 blew through them all without so much as a polite burp.

After that, it was back to the American Eagles again, and I spent some time playing with the Streamlight's green laser. Even in broad daylight, I had no issue seeing it at the 50-yard mark, although it wouldn't be the quickest way to acquire a target at that distance. At 25 yards, it stood out like a beacon, and it was quite easy to draw a picture on the target with the 33-round magazines. Another 400 rounds spent.

The third and last day at the range was the one that closed the deal, as far as I was concerned. I did a few drills shooting from cover and from the ground, and I held the rifle in every possible position. I never experienced a single malfunction. It wasn't long before I looked over, saw an empty case of ammo and realized my time was done.

My quest was over, and I had in my hands—with regard to my search for the best Glock-compatible carbine—the equivalent of the Holy Grail. It was both exhilarating and saddening at the same time ... where do I go from here?

As you are, no doubt, aware, the Angstadt Arms UDP-9 Rifle met and exceeded all my expectations, and the experience was even better with the excellent performance of both the Streamlight TLR-2 G and the Hi-Lux Micro-Max B-Dot sight.

Now, it is time to find a new mission, ask new questions and tend to other goals while reveling in the knowledge that, sometimes, dreams do, indeed, come true. ■■■

CONTACT INFORMATION

Angstadt Arms
www.angstadtarms.com

Streamlight
www.streamlight.com

Hi-Lux Optics
www.hi-luxoptics.com

Federal Premium Ammunition
www.federalpremium.com

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**"THE RIMFIRE CARTRIDGES
CAN BE USED FOR SMALL
GAME AND PESTS, WHEREAS
THE .45 AUTO PROVIDES
POWER TO HANDLE
MORE-SERIOUS ISSUES."**

.45 AUTO OR .22 RIMFIRE?



THE BEST OF BOTH WORLDS **IN ONE GUN**

By James E. House

ONE OF THE MOST IMPORTANT ASPECTS OF SURVIVAL EQUIPMENT IS BEING ABLE TO GET THE MOST PERFORMANCE OUT OF A MINIMUM OF EQUIPMENT. Someone once said that the greater the amount of knowledge you possess, the smaller the amount of equipment you need. Most would agree that in many survival situations, a firearm is a necessity. Two firearms might be even better, especially if one was powerful enough for defense situations and the other was suitable for dispatching small game and pests.

A .45 ACP pistol of the Colt 1911 style can be configured to fulfill both roles, and kits are available for other types of centerfire autoloaders, as well. Although revolvers are available with cylinders to fire cartridges of

the same caliber, they are either for .22 LR/.22 WMR or .45 Colt/.45 Auto combinations. Such a restriction does not apply to the 1911 autoloader.

A pistol that can fire either .22 LR or .45 Auto ammunition provides a lot of versatility. The rimfire cartridges can be used for small game and pests, whereas the .45 Auto provides power to handle more-serious issues.

In addition to the versatility question, another reason to have a conversion unit for your .45 Auto is the difference in the cost of ammunition. Moreover, the conversion unit also allows you to practice with your “serious” or major caliber gun—but at a much cheaper price.

PISTOLS AND REVOLVERS

Caliber changes in revolvers are accomplished by changing cylinders. However, in the case of a centerfire autoloader, the unit that is used to convert a .45 Auto to .22 LR consists of both a barrel and a different slide. Because the .45 Auto is a powerful cartridge, the barrel and slide are locked together at the time of firing.

On the other hand, auto-loading pistols that fire the .22 LR are of a simple blowback design. Therefore, the barrel and slide that are part of the conversion unit are designed to function in that manner. A magazine that accommodates .22 LR cartridges is also provided.

Conversion units are considered to be accessories rather than firearms.

Consequently, they can be ordered and shipped directly to the consumer.

Interest in semi-automatic pistols has risen dramatically in recent years. Simultaneously, there has been a considerable increase in interest in .22 conversion units; as a result, they are being produced for other types of pistols. Not only have the firearm manufacturers, themselves, introduced such units, but independent makers have also brought products to market.

One such instance is the production of .22 conversion kits produced by Tactical Solutions, Ciener and Advantage Arms for Glock pistols. Advantage Arms and Ciener also produce conversion units for 1911 models and several other types of pistols.

CONVERSION PROCESS

Because the unit was to be mounted on a Kimber Custom II, the Kimber .22 conversion unit was selected. However, it is a unit that can

Converting a 1911-style .45 Auto to a .22 LR results in a gun that is both familiar in operation and versatile.



(below) Changing slides on a .45 Auto provides an alternate rimfire caliber of the same size but lighter weight.



**"PLACING A .22
CONVERSION KIT
ON A .45 AUTO FRAME
IS NOT A DIFFICULT
PROCEDURE."**

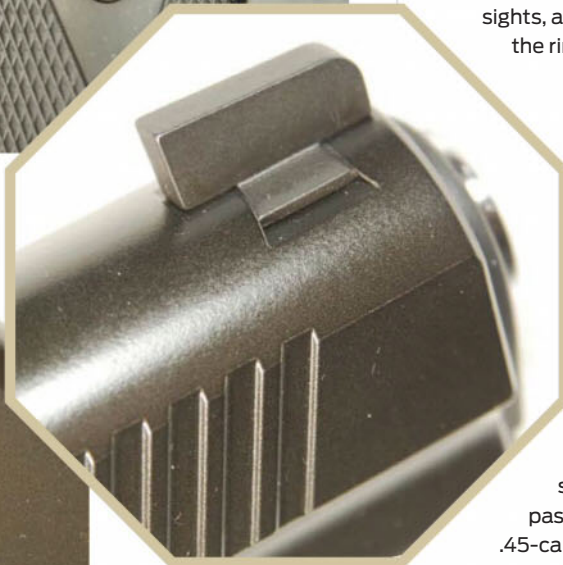
(left) Changing slides on a 1911-style .45 begins with removing the barrel bushing.

(below) After the bushing is removed, the recoil spring and nose plug can be lifted out.





(above) To remove the slide-retaining pin, it must be aligned so that the arched notch in the slide is opposite the rear section of the pin.



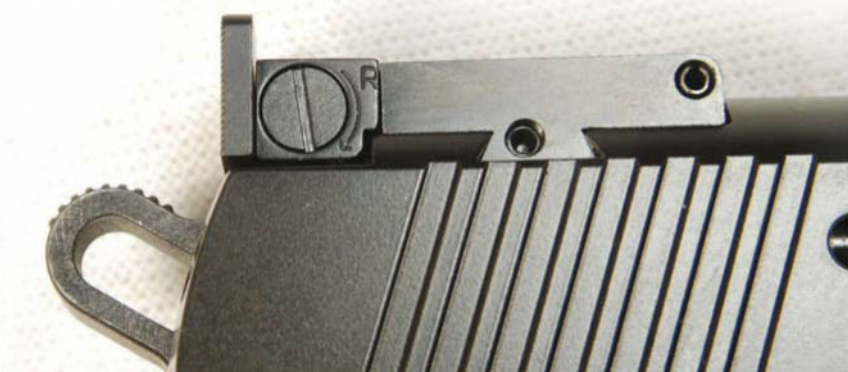
(above inset) The Kimber .22 LR conversion unit is provided with a target-type front sight.



(left) The hole in the rear end of the guide rod must be aligned with the hole in the frame before the slide-retaining pin can be inserted.

(below left) Windage adjustment is made by turning the screw in the appropriate direction.

(below right) The rear sight is fully adjustable, and the direction of adjustment is clearly indicated.



be utilized on other 1911-style pistols. The slide, itself, is made of an aluminum alloy, so the result is a pistol that weighs 31.3 ounces (compared to the 38-ounce weight of the .45 Auto version). The Kimber .22 conversion unit is provided with excellent target-type sights, and the slide is engraved with the rimfire target logo.

Placing a .22 conversion kit on a .45 Auto frame is not a difficult procedure. To install the unit, the magazine is removed and the pistol is cocked. The pistol is disassembled in the usual fashion for a 1911 model by removing the barrel bushing, which makes it possible to remove the recoil spring and the recoil spring plug that holds it in place. The slide-retaining pin, which passes through the barrel link in a .45-caliber 1911, is pushed out from the right-hand side. After that is done, the slide is removed by pulling it forward off the grip frame.

The .22 unit is placed on the frame from the front and moved to the rear until the hole in the guide rod lines up with the hole in the frame that accommodates the slide-retaining pin. A small tab on the slide-retaining pin moves inside the outer rail of the slide; this keeps the pin from drifting out of the frame during firing. After the pin is inserted part of the way, the slide is moved to the rear so that the lip that rides under the rail on the slide is aligned with the small, arched notch in the slide. The pin can then be inserted fully.

Even though the .22 LR employs a simple blowback design rather than a locked barrel, the slide has enough weight to need to be driven to





(above) The Kimber conversion unit is furnished with a 10-round magazine made of a polymer material.

(inset) The muzzle of the Kimber .22 LR barrel has a raised protective ring.

“WITH THE PISTOL HAVING THE SAME FEEL AND TRIGGER ACTION, IT WAS AN EFFORTLESS TRANSITION FROM FIRING .45 AUTO TO .22 LR AMMUNITION.”

the rear smartly in order to cycle reliably. Consequently, Kimber states in the instructions to only use high-velocity .22 LR ammunition.

Numerous postings on the Internet have dealt with rather frequent failures to feed with some of the .22 conversion units. Several types of high-velocity ammunition have been fired from my pistol, which is fitted with the Kimber unit, and I only encountered two failures to feed—and those were both with an inexpensive, price-leader type of ammunition. Otherwise, functioning has been flawless.

PAINLESS TRANSITION

It did not take long to realize that the Kimber “.45 made into a .22” was incredibly accurate. Right out of the box, the sights were adjusted almost perfectly. The converted 1911 Kimber is sufficiently accurate for taking small game or pests, as well as for all sorts of plinking. With

WEIGHTS

Kimber frame	16.2 ounces
.45 Auto, complete	38.0 ounces
.22 conversion unit	13.2 ounces
.22 LR, complete	31.3 ounces

the pistol having the same feel and trigger action, it was an effortless transition from firing .45 Auto to .22 LR ammunition.

I am so impressed with the performance of the Kimber conversion unit that it seems to be permanently mounted on the Kimber Custom II frame. At the very least, having the flexibility to shoot a .45 Auto and .22 LR that have identical controls and feel would be very useful for making do with a minimum of equipment. Such is the nature of survival. **ASG**

CONTACT INFORMATION

Advantage Arms
(208) 667-2121
www.advantagearms.com

J. A. Ciener, Inc.
(321) 868-2200
www.22lrconversions.com

Kimber
(888) 243-4522
www.KimberAmerica.com

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CAT.#	DESCRIPTION	SIZE	PRICE
SC101	Hot Stuff Original	2 oz	12.95
SC102	Hot Stuff Original	4 oz	24.59
SC103	Super T Medium	2 oz	12.95
SC104	Special T Thick	2 oz	13.45
SC105	Quick Accelerator	6 oz	15.95
SC106	Solvent Debonder	2 oz	10.95

West System Adhesives



WEST SYSTEM EPOXY cures to a high-strength plastic solid at room temperatures. Designed specifically to bond to a wide range of materials including fiberglass, many metals, wood, fabrics, foam and other composite materials. The 206 slow-cure hardener has a working time of 90 to 110 minutes at 70°F with a minimum cure temperature of 60°F. Cure time for maximum strength is 1-4 days. **G-FLEX EPOXY** are toughened, resilient two-part epoxies engineered for superior grip to metals, plastics, glass, masonry, fiberglass, and difficult to bond woods. G-Flex makes bonds that absorb the stresses of expansion, contraction, shock and vibration. Initial cure in 3-4 hours with workable cure in 7-10 hours. **G5 EPOXY** is an easy to use, fast curing epoxy system for quick repairs, tooling and general bonding. Bonds to wood, fiberglass, and metal. 1:1 mixture. Cures in 3-5 minutes.

CAT.#	DESCRIPTION	PRICE
WE105A	1 qt #105 Resin	39.71
WE206A	.44 pt #206 Slow Hardener	20.50
WE6508	G/Flex Liquid 4 oz.	22.49
WE6558	G/Flex Pre-Thickened 4.5 oz.	24.65
WE8654	G5 Minute Adhesive	21.48

HANDLE EXOTICS

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We have the largest selection of ironwood burl available. Ironwood is one of the hardest, rarest and most stable wood on earth. It will not shrink or move. This naturally stable wood is easy to work. Scales are matched sets, each piece measures 3/8" x 1 1/2" x 5" long. Blocks are 1 1/8" x 1 1/2" x 5" long. Sizes are approximate.



CAT.#	DESCRIPTION	PRICE
EW170	High Contrast Scales	16.00
EW270	High Contrast Block	21.00
EW172	Exhibition Burl Scales	35.00
EW272	Exhibition Burl Block	40.00
EW173	Presentation Burl Scales	40.00
EW273	Presentation Burl Block	45.00

WEEKEND PROJECT

OUTDOORSMAN SERIES

Perfect for any camping or hunting trip. The non-glare bead blasted finish blends nicely with the sharp grind lines and edges. An easy knifemaking project for the beginner, looks fabulous, yet can be completed in a few hours. Kit includes 3/16" pins, blade and profiled and drilled dymondwood handle material.



CAT.#	DESCRIPTION	PRICE
SS63209	Kit with Silver-Black	24.95
SS63225	Kit with Rosewood	24.95
SS63249	Kit with Black Ink Cocobolo	24.95
KT102	Leather Sheath	14.50



CAT.#	DESCRIPTION	PRICE
SS63309	Kit with Silver-Black	24.95
SS63325	Kit with Rosewood	24.95
SS63349	Kit with Black Ink Cocobolo	24.95
KT102	Leather Sheath	14.50



CAT.#	DESCRIPTION	PRICE
SS63909	Kit with Silver-Black	24.95
SS63925	Kit with Rosewood	24.95
SS63949	Kit with Black Ink Cocobolo	24.95
KT111	Leather Sheath	14.50



CAT.#	DESCRIPTION	PRICE
SS63809	Kit with Silver-Black	24.95
SS63825	Kit with Rosewood	24.95
SS63849	Kit with Black Ink Cocobolo	24.95
KT111	Leather Sheath	14.50



CAT.#	DESCRIPTION	PRICE
SS63109	Kit with Silver-Black	29.95
SS63125	Kit with Rosewood	29.95
SS63149	Kit with Black Ink Cocobolo	29.95
KT631	Leather Sheath	12.95

KNIFE MAKING.COM

LOCKBACK FOLDERS KEEN-EDGE CUTLERY MOSAIC PINS™

Own or gift a "One Of A Kind" folding knife that you have created yourself. Our folder sets are complete with blades, bolsters, liners and pins as described (Please note handle material is NOT supplied).

Whitetail



Overall length is 6 5/8" when opened, 3 3/4" closed, 2 1/2" blade length. Nickel silver bolster, brass liner and pins. Requires drill bits #TD8, #TD40 and #TD50.

CAT.#	DESCRIPTION	PRICE
SS776	Whitetail	39.95

Lynx



Opens to a full 7 1/8", measures 4 1/8" closed. Blade edge is 2 3/4". Nickel silver bolster, brass liner and pins. Requires drill bits #TD47 and #TD50.

CAT.#	DESCRIPTION	PRICE
SS771	Lynx	34.95

Blackhawk



Overall length of 6" opened, 3 5/8" closed. Blade is 2 1/2" long. Nickel silver bolster, brass liner and pins. Requires drill bits #TD47 and #TD50.

CAT.#	DESCRIPTION	PRICE
SS773	Blackhawk	34.95

Elk



Clip point lockback opens to 8 1/4" overall, 4 3/4" closed, blade edge is 3 1/4". Nickel silver bolster and stainless steel liner, brass tubing and pins. Requires drill bits #TD8, #TD31, #TD40 & #TD50.

CAT.#	DESCRIPTION	PRICE
SS779	Elk	49.95

Walnut & Walnut Burl



Good contrast and grain. Color will vary from light to deep dark brown in each piece. Blocks are 1" x 1 1/2" x 5" long. Scales are matched sets, each piece measures 3/8" x 1 1/2" x 5" long. Sizes are approximate.

CAT.#	DESCRIPTION	PRICE
EW116	Walnut Scale Set	4.95
EW216	Walnut Block	4.50
EW117	Walnut Burl Scale Set	12.95
EW217	Walnut Burl Block	12.50
EW119	Supreme Walnut Scale Set	19.95
EW219	Supreme Walnut Block	19.50

Premium quality cutlery blades were designed especially with the professional Chef in mind. Made from super tough 8A stainless steel, flat ground to a Keen-Edge that stays sharp. Used as chef blades, cooks blades, paring knives, and steak blades. This set is perfect for any kitchen or camp. (Please note handle material and rivets are NOT supplied).

Chef's Blade



Light, well balanced, beautifully shaped, designed to be used often, this super tough and flexible blade has a Keen-Edge flat ground from 8A stainless. 12 1/2" overall with a full 8 3/4" cutting edge. Tang holes are 5/32" for 5/16" cutlery rivets or use 5/32" or smaller pins.

CAT.#	DESCRIPTION	PRICE
SS107	8 3/4" Chef's Blade	18.95

Cook's Blade



One of the most used knives in the kitchen or camp is the cook's blade. Perfect for small chopping jobs, paring, cutting, slicing, a perfect all around camp knife. 10 1/2" overall with a 6" cutting edge, .078" thick blade is nicely tapered to the tip of the blade. Super tough 8A flat ground Keen-Edge stays sharp. 5/32" rivet holes for use with 5/16" cutlery rivets or 5/32" or smaller pins.

CAT.#	DESCRIPTION	PRICE
SS106	6" Cook's Blade	16.95

Steak Blade



Perfect size for a steak or paring knife. Super tough 8A stainless blade is 7 1/2" overall, 3 1/2" cutting edge, .058" thick. A must for every kitchen and camp. Three tang holes are sized for 3/16" cutlery rivets or 1/8" or smaller pins.

CAT.#	DESCRIPTION	PRICE
SS108	Steak Blade	10.95

Santoku Blade



The Japanese style Santoku Keen-Edge blade is perfect for cutting, chopping, slicing and dicing. Super tough 8A stainless blade. 10-3/4" overall, 6" blade, .070 thickness. Tang holes are 5/32" for 5/16" cutlery rivets or pins.

CAT.#	DESCRIPTION	PRICE
SS110	Santoku Blade	18.95

Paw Prints™

New for 2015, Jantz introduces our line of Paw Prints™ Mosaic Pins™. The perfect pin to complement any hunting knife or a special project for the dog lover in your life. Use as rivets or to pin guards. Or replace your thong hole with Paw Prints™ for stand out contrast. Pins available in 3 3/4" lengths also.



Paw Prints™ Mosaic Pins™ on Tan G10 with scrimshaw design. Custom knife designed and built by Jose Gpe. Ruiz Garcia, Mexico.

3/16" x 12"	1/4" x 12"	1/4" x 12"
Doberman	Shepherd	Lab
#MP380 \$22.95	#MP455 \$44.95	#MP480 \$44.95

1/8" Diameter x 12" Length

Black Eyed Suzy	Sun Beam	Wild Rose
#MP810 \$14.95	#MP860 \$18.95	#MP880 \$18.95

5/32" Diameter x 12" Length

Golden Ring	Cats Eye	Diamond Crystal
#MP510 \$22.95	#MP520 \$22.95	#MP530 \$22.95

3/16" Diameter x 12" Length

Morning Star	Lucky Clover	Ferris Wheel
#MP300 \$22.95	#MP310 \$22.95	#MP340 \$29.95

7/32" Diameter x 12" Length

Starburst	Wind Tunnel	Northern Star
#MP700 \$39.95	#MP730 \$39.95	#MP785 \$39.95

1/4" Diameter x 12" Length

Circle of Light	Four of a Kind	Meteorite
#MP405 \$44.95	#MP410 \$44.95	#MP440 \$44.95

JANTZ 1-800-351-8900

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GEAR GUIDE

02 16

SIGNAL



Lost in the White

Effective signaling devices for winter emergencies

By Michael D'Angona

TIME IS NOT ON YOUR SIDE when you find yourself lost in an icy, cold environment. Being constantly exposed to fierce, subzero winds as you trek through deep and unstable snow can lead to hypothermia, frostbite and even death. Your key to survival lies in the ability of rescuers to find you as quickly as possible.

For that to happen, you need some help.

Cover all your bases using visual, audio and technological aids to create something “out of the ordinary” to attract others’ attention. From simple, brightly colored tarps to ear-piercing rescue whistles and sophisticated personal locators, more is definitely better when there are miles of swirling, white snow between your bone-chilling circumstances and possible rescue.

Remember, as with most survival situations, review all possible scenarios as you assemble your “winterized” signal kit. For example, you might not be in your own vehicle if and when you slide into a ditch, or you might not have access to your supply bag when fate takes an unexpected turn. It’s important to keep a variety of signal devices on hand at all times.

Nature is unpredictable; it’s up to you to be prepared when her wrath falls upon you. With that in mind, following are some items that might just help you get back home safely.



inReach Explorer

The inReach has it all. This portable communication device should be your ultimate companion on any outdoor excursion when a cell phone just isn’t enough. The compact and highly durable unit allows you to navigate, create waypoints, log your trip and—most importantly—find your way back to “civilization.” It features a built-in compass, the ability to send up to 160-character text messages, and will receive and deliver communications to your rescuers if you find yourself lost in a harsh, snowy environment. The inReach offers a 100 percent global coverage area, so no matter where you are, you will always have a backup if your situation takes a turn for the worse.

Features

- Altimeter and accelerometer
- 100-hour battery life
- Full color screen
- Rugged, dustproof and impact resistant
- Bluetooth compatible
- Built-in compass

\$379.95
www.delorme.com



GEAR GUIDE

SIGNAL



Storm Safety Whistle

When you need to be heard, this whistle does the trick ... and then some! The Storm Safety Whistle blasts an alarm twice as loud as any other whistle on the market today. This is vital when being found might mean the difference between life and death. This rescue device has a range of nearly a half-mile over land and a full mile over water. Its unique design releases a full fury of sound over the surrounding landscape. It's waterproof, easy to grip and even works under water. It is used by military, law enforcement and rescue teams. This is a must-have item for all family members.

Features

- Easy-grip design
- Waterproof
- Easy to use
- ½-mile range on land
- Made in the USA

\$5.98

www.stormwhistles.com



EG18 High-Output Smoke Grenade

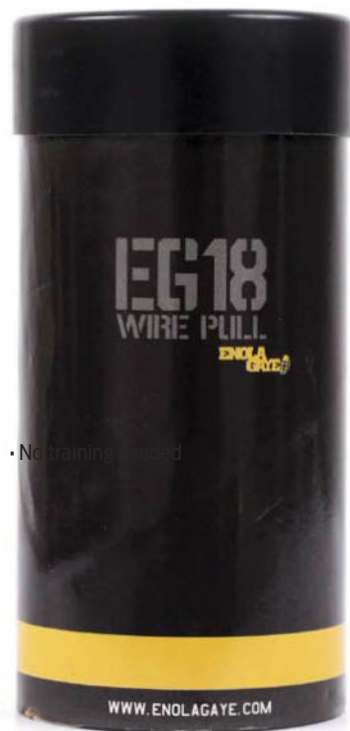
This smoke "grenade" boasts the densest smoke cloud you can find on the market today (outside of the military). With seven colors available to contrast with your white-snow surroundings, a search party will find you quickly. The EG18 features easy-to-use operation: Just pull the ignition wire and release a full 90 seconds of high-output, colored smoke. These smoke grenades are designed with cool-burn technology, which produces no external flame—making them safe to use by nearly anyone. These "lifesavers" won't let you down when you need to signal while in any harsh, snowy environment.

Features

- Easy to use
- Cool-burn formula
- Easy ignition
- No external flame
- Convenient wire-pull mechanism

\$19.90

www.enolagaye.com



• No training needed

Orange Smoke Signals

Alert others to your location with a burst of dense, orange smoke. You need contrast against a white backdrop, and the Orion smoke signal can help accomplish this perfectly. Simply activate the self-contained ignition and release a smoke cloud that can be seen for miles. Carry several whenever hiking, camping or exploring during the winter months. At only 4 ounces per unit, they won't weigh you down. Getting lost can happen to anyone, so be prepared and make it out alive.

Features

- High-density smoke
- Daytime or nighttime use
- Lightweight
- Waterproof
- Burns for one minute
- No matches needed

\$15.99

www.orionsignals.com

Pocket Rocket

Shooting upward an incredible 300 feet and visible to rescuers 7 miles out, the Pocket Rocket signal flare kit should be your go-to device to alert others nearby to your dire situation. Its bright-red color provides contrast against the colors of nature during harsh winter times. The Pocket Rocket's compact design allows you to carry this lifesaver in your supply pack or emergency kit anywhere you go. You never expect to get lost, so be prepared with this ultimate signal flare kit.

Features

- Lightweight design
- Windproof
- Viewable from miles away
- Reusable launcher
- Waterproof storage container
- Long burn time

\$38.99
www.orionsignals.com



\$7.99 (8-pack)
www.ustbrands.com

GLO Tape

Don't let your sleep time stop your ability to signal for help. Just expose these glow-in-the-dark tape panels to sunlight during the day and light up your camp through the night. Whatever form of distress signal you create, you can be assured your message will stand out to those searching for you under the extreme darkness of winter. These panels will glow up to 10 hours, are not adversely affected by cold or other weather conditions, and will recharge daily. This low-tech, passive-signaling tool might be your answer to being found when lost at night.

Features

- Glows up to 10 hours
- Strong adhesive backing
- Easy-to-cut material
- Unlimited recharge times
- Functions in extreme cold
- Pre-cut in convenient 2x4-inch pieces

\$6.99/100FT

Genuine 550 lb. Type III, 1/8" diameter nylon Paracord with a seven strand core. 46 colors available.



PC101 White

5



PC102 Black

5



PC103 Olive Drab

0



PC104 Coyote Brown



PC106 Charcoal

P



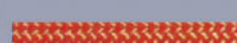
PC108 Burgundy

A



PC116 Colonial Blue

R



PC118 Neon Orange

A



PC123 Solar Orange

C



PC127 Desert Camo

O



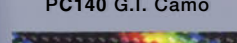
PC128 Foliage Camo

R



PC140 G.I. Camo

D



PC139 Galaxy

Side Release Buckles

Durable plastic side release buckles used to complete paracord bracelets. Available in 3/8" and 5/8" sizes.



PC993 3/8" (PKG OF 10) Assorted 6.95
PC995 5/8" (PKG OF 10) Assorted 6.95

JANTZ
1-800-351-8900
knifemaking.com

See-Me 1.0 Strobe

When daylight ends, many signaling devices become useless. The See-Me Strobe light, however, becomes a life-saving beacon visible in the dark for over 2 miles. This amazing device provides an output of 28 lumens of light for a continuous 44 hours of illumination. That's nearly five nights of nonstop signaling. The unit is waterproof and features a lifetime LED bulb, so under harsh conditions, it will continue to operate smoothly and efficiently. This device strobes at 60 times per minute and runs on two AAA batteries.

Features

- Lifetime LED bulb
- Waterproof design
- Over 2.5 miles of visibility at night
- U.S. Coast Guard approved
- Lanyard cord
- Battery powered



\$14.99
www.ustbrands.com

ResQLink+ PLB

This PLB (personal locator beacon) is small enough to fit into your coat pocket, yet it is powerful enough to relay your location from anywhere in the world. Using three levels of integrated signal technology, the ResQLink offers GPS positioning and powerful, 5 watt 406 MHz and 5 milliwatt 121.5 MHz signal capability. If your luck takes a turn for the worse, just lift the antenna, press "ON," and the unit will do the rest. Accurate within 100 meters, the ResQLink PLB offers a built-in strobe light for nighttime rescues and will float if accidentally dropped in water. Its rugged construction can handle nearly any harsh environment.

Features

- Intense LED strobe
- Buoyant
- Onboard 66-channel GPS
- 30-hour run time
- Made in the USA

\$254.99
www.acrartex.com



Hex Tarp

This tarp's bright-orange color against a white background can bring search pilots to your location fast, as well as supply you with needed shelter and insulation from the cold. The Hex Tarp is designed to offer quick overhead shelter from the elements via its included guy lines and steel stakes; it can also serve to prevent possible hypothermia by using it as an insulated ground base. Weighing only a pound and a half, this all-weather survival item can be stored in your trunk or pack to offer quick shelter while providing a highly visible signal for those searching from the skies.

Features

- Highly visible orange color
- Multiple uses
- Guy lines and stakes
- Thermal insulated material
- Tough and durable
- Weight: 1 pound, 8 ounces (680g)

\$39.99
www.ustbrands.com





Aurora Orange Smoke Signal

When you're trying to get rescuers' attention, the Aurora smoke signal can help point the way by pouring out 60 seconds of dense, orange smoke. Not only can it be used to get attention, it will also show the wind direction for air rescue personnel. A few of these tucked away in your pack provide good insurance for venturing into the winter wilderness. Weighing only about 6 ounces each, they won't weigh you down. The shelf life of these smoke signals is more than three years, so you can be assured of their utility season after season.

Features

- Dense, orange smoke cloud
- Protective handle
- No-strike ignition
- Functions after water submersion
- 60-second burn time
- 42-month expiration date

\$19.99

www.acrartex.com



Find-Me Floating Whistle and Signal Mirror

This economical signaling combination offers both visual and audio cues to your rescuers, enabling them to find you fast under extreme conditions. Use the signal mirror under the intense rays of the sun and its high-decibel whistle to alert others that help is needed ASAP. This signaling duo is secured on an included lanyard to ensure it will always be nearby and ready for use. Additionally, it features an included float that prevents your devices from sinking to the bottom of an unfrozen pond or lake if they are accidentally dropped.

Features

- Signaling essentials
- Simple design
- Easy to use
- "Sink-free" float
- Bright-orange color
- Breakaway lanyard

\$4.99

www.ustbrands.com

ASB



Portable Sound 911 Signal Horn

The human voice carries only so far over land, and after repeated shouting, your voice will become scratchy, sore and ultimately ineffective. This will never happen with a portable signal horn. Just a single touch of the Portable Sound 911 Signal Horn's button will release a 112-decibel blast that can be heard over a half-mile away. Anyone looking for you nearby will quickly be alerted to your location. This compact unit fits easily into any supply bag or even your back pants pocket. Save your energy and use this simple signaling device to send out a call for help.

Features

- 112-decibel blast
- Simple, push-button operation
- Compact design
- Multiple-use can
- 100 percent ozone safe
- Over half-mile range on land



\$11.99

www.falconsafety.com

how-to.02.16





No-Cook SURVIVAL FOODS

EASY SOLUTIONS TO KEEP
THE BODY'S FIRE BURNING

By Kevin Estela

If there is a season that tests the willpower of man, it is winter. In winter, cold weather forces the body's internal furnace to work harder to produce the heat necessary to maintain the optimal body temperature of 98.6 degrees (F). Factor in cold-air respiration, movement through heavy snow and carrying the weight of heavy clothes and gear, and you begin to understand why proper nutrition is crucial to survival.

"... COLD WEATHER FORCES THE BODY'S INTERNAL FURNACE TO WORK HARDER TO PRODUCE THE HEAT NECESSARY TO MAINTAIN THE OPTIMAL BODY TEMPERATURE OF 98.6 DEGREES (F)."



One calorie is measured in the amount of energy needed to raise 1 kilogram of water 1 degree Celsius. Since the body is composed primarily of water, keeping the body warm in cold weather requires eating more calories. Whereas the normal daily caloric intake of the average American is approximately 2,000 to 2,500 calories, it is not uncommon to consume two or three times as many calories outdoors in the winter without any noticeable weight gain as your body metabolizes food for energy.

While the prospect of eating more without consequence is incentive for many outdoorsmen to go ice fishing, snowmobiling, camping and hiking, what you eat is more important than how much you eat. During one of the harshest seasons on the body, easy sources of pre-made nutrition will prevent having to work harder than you have to for a meal.

What follows are easy, no-cook winter food choices that offer a good blend of protein, fat and carbohydrates to keep you going during winter's cold weather.

ENERGY BITES/PROTEIN BALLS

A great no-cook source of nutrition is energy bites (some people call them "protein balls"). These are easily made by combining your favorite nut butter (peanut, almond or



(above) **Protein balls/energy bites require no cooking and are made by mixing together a handful of ingredients.**

sunflower seed, for example), honey, chia seeds, flax meal, chocolate chips and oats. An optional additional ingredient is dried fruit such as raisins, cranberries or blueberries. Once all the ingredients are mixed to the desired consistency and rolled into shape, they are placed in your refrigerator to firm up.



(above) Protein balls/energy bites are rolled into ping-pong ball-sized servings. They hold their form after “setting” in the refrigerator and will not stick together if lightly rolled in flour.

If you find your energy bites/protein balls won’t hold shape, simply add more dry ingredients. They should be dense and not easily deformed and should also not be too hard to easily chew and digest.

These energy bites/protein balls can be portioned out similarly to emergency rations. Each ping-pong ball-sized bite is approximately 100 calories. If one is consumed every two hours, the body will continue to metabolize and not go into “starvation mode” as it does during long intervals without food.

A few of these bites can be used as an occasional meal substitute that provides complex nutrition. Depending on your personal preference, you can modify the recipe to include more carbohydrates from the oats and fruit or more fat and protein from the peanut, almond or sunflower seed butter.

Energy bites/protein balls can be rolled in some flour to prevent them from sticking together and carried in a ziptop baggie or rolled onto a sheet, cut into larger squares and carried like most energy bars. They should be kept cool if possible and consumed with a minimum of 8 ounces of water per serving.

Energy Bites/Protein Balls Ingredients

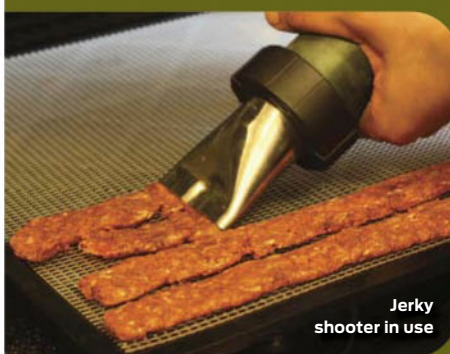
- 1.5 cups rolled oats
- ½ cup flax meal
- ½ cup peanut butter or equivalent
- ½ cup honey
- ½ cup chocolate chips
- ¼ cup chia seeds
- optional: ½ cup raisins, cranberries or dried blueberries
- optional: cinnamon to taste



Seasoned
meat mixed



Hamburger beef
jerky seasoning



Jerky
shooter in use

Hamburger Beef Jerky

Dried meat has been a survival ration for thousands of years. From early man to the present day, jerky has provided a protein-dense snack and is now available in countless flavors. Even though various jerkies are available in sporting goods stores and supermarkets, some of the best jerky is made right at home using a simple jerky shooter and food dehydrator. If a dehydrator is not available, jerky can be made right in the oven.

Rather than using sliced beef, hamburger meat is an option that is very easy to chew, process and handle. Because hamburger meat does not have long strands of sinew and connective tissue, the strips you make will be easier to bite through and require less chewing to consume while maintaining all the flavor of regular sliced jerky. For dehydrating, 93 percent lean ground beef is preferred, because less fat will

“COCONUT FLAKES, SUCH AS THOSE USED FOR BAKING, ARE ALSO VERY CALORIE DENSE AND RICH IN FAT.”

WINTER TRAIL MIX

Good, old raisins and peanuts, affectionately known as “GORP,” is the basis for most trail mixes. Raisins provide sugar, peanuts provide fat and M&M candies also offer supplemental sugar and fat. This combination is a good trail snack year round. And with some substitutions and some supplemental ingredients, it can be made ideal for winter travel.

A good winter trail mix starts with the most-calorie-dense ingredient—nuts. Nuts vary in the amount of saturated fat, carbohydrates and protein they offer. While choices such as macadamia nuts and cashews are preferable for the amount of calories they provide, one general comment can be made about the nuts chosen for any winter trail mix: The nuts used should be low salt or salt free. This will prevent unwanted dehydration. Some salt is necessary

(below) The author's high-calorie winter trail mix is made with cashews, dark chocolate chips, peanut butter chips, coconut flakes and cranberries. A quarter-cup of this mix contains 12 grams of fat and 200 calories.



for the body to replenish what is lost from sweating, but too much is dangerous; possibly deadly. Consequently, for this trail mix, unsalted cashews are used.

Another source of good carbohydrates and fat is coconut. Coconut flakes, such as those used for baking, are also very calorie dense and rich in fat.

I know what you're thinking: This is a very fat-laden recipe. You're right. Fats are essential to life, offering condensed energy, essential nutrients not found in greens, and the constitution of myelin found in the nervous system that controls all bodily functions. Fats provide incredible energy and metabolize slowly, keeping you warmer longer.

Dark chocolate chips or peanut butter chips are added to this mix, along with cranberries, for added nutrition and flavor. The dark chocolate and peanut butter offer additional fat and calories. The dried cranberries offer natural sugar sweetener and fiber. Digestion in the winter can be difficult, but the added fiber will help keep you regular.

Winter Trail Mix Ingredients

Use equal measures of each:

- cashews
- coconut flakes
- dried cranberries
- dark chocolate chips
- peanut butter chips

Note: A quarter cup of this trail mix has approximately 200 calories and 12 grams of fat.



(above) One cup of winter trail mix weighs fewer than 6 ounces and contains more than 800 calories and 48 grams of fat.



need to be patted off in the process. If fat is not removed from the jerky, it will go rancid quickly.

Using strictly dry ingredients, the jerky created will come out stiffer and hold together better. Using marinades or adding any liquid to the seasoning will help it disperse easier, but it will add to the drying time.

Sriracha/honey, teriyaki/garlic, Italian, curry—the options are endless.

Once the strips are laid out, they are dried at 145 degrees (F) for six to 10 hours or until a desired texture is reached. Jerky will store for months in zip-top bags and even longer if vacuum packed or frozen.

Ground-beef jerky is very high in protein but low in fat. It can be added to rice dishes, soups or eaten as is. Since it carries little water, it provides great flavor for very little weight. Whether you decide to purchase jerky from a store or make it at home, add this “original protein bar” our ancestors ate to your outdoors menu.





SPICY HOT COCOA WITH COCONUT OIL

This homemade hot cocoa recipe will warm the body three ways. The first warming comes from consuming the hot drink. The second is provided by the cayenne pepper, which causes vasodilation (a fancy word for opening up your blood vessels). The third warming is from the sugar and fat metabolizing in your body. All that is needed to prepare this spicy concoction is boiling water and adding it to the powdered mix.

There are two ways to create this mix. The easy way is to simply use pre-made hot cocoa mix purchased from any grocery store. Open a hot cocoa package and add a dash of cayenne pepper. Then, add a tablespoon of coconut oil and seal the package again or place all the ingredients in a zip-top bag.

You can use butter instead of the coconut oil in your hot cocoa, but you will find that coconut oil will pack better and last longer without the need for refrigeration. In cooler weather, you don't need to concern yourself with the coconut oil melting, because the temperature in your pack (where the mix is likely carried) won't be hot enough to affect it.

The other option is to make your hot cocoa by mixing dry ingredients. This method produces a significant amount of mixture and should last for many servings. The dried mixture can be carried loose in small Nalgene bottles or recycled screw-top containers such as a peanut butter jar.

For an 8-ounce cup, approximately 4 tablespoons of mixture is used. The dried mixture can be carried in extreme temperatures, unaffected by the cold. Because it is caffeine free, it can be consumed any time of the day and is ideal for immediately prior to sleep. The sugar will warm your body initially, and the fat will take over once the sugar is used up.

Spicy Hot Cocoa Ingredients

- 2 cups powdered sugar
- 1 cup Hershey's Cocoa (special dark; Dutch processed)
- 2½ cups French vanilla powdered nondairy coffee creamer
- 1 teaspoon salt
- 2 teaspoons cornstarch
- ½ teaspoon cayenne pepper



(top) The spicy hot cocoa described in this article can be made with store-bought ingredients. Mixed with coconut oil, it will warm the body three ways.

(right) Spicy hot cocoa can be consumed at any time of day and, when mixed with one tablespoon of coconut oil or butter, it provides the carbohydrates and fat necessary to stay warm.



INCREASE YOUR ODDS

These snacks are just a few ways to ensure you receive an adequate amount of calories in your diet during cold-weather activities. They are meant to supplement the meals you should be eating regularly and should not be used as stand-alone nutrition for long-term survival. Proper breakfast, lunch and dinner meals should be eaten, providing the majority of caloric intake for the day.

These snacks are great on the go and store well in vehicles, especially when sealed in a vacuum packer for long-term preparedness. Caution should be used if consuming these outside of the winter months and situations where high-caloric intake is necessary. If the body doesn't require the energy, it will be stored as fat.

Calorie-dense food is just one factor in the cold-weather survival formula. Pair it with proper clothing and gear, and your odds of surviving increase exponentially. **ASB**

“THE SUGAR WILL WARM YOUR BODY INITIALLY, AND THE FAT WILL TAKE OVER ONCE THE SUGAR IS USED UP.”



Water Intake Considerations

“Drink water.” It sounds easy enough. People forget cold air can be extremely dry, and it isn't difficult to fall short on drinking the amount of water necessary to maintain normal bodily functions. In the middle of winter, when the air is cold, drinking cold water can rapidly lower body temperature. When the temperature drops, the act of consuming cold water becomes uncomfortable. Therefore, it is imperative to find ways to make drinking water more appealing.

One of the best ways to consume more water is to simply heat it up. This is most easily accomplished with a metal canteen and open-flame heat source. A fuel-canister stove, solid-tablet stove such as the Esbit or a denatured-alcohol stove will work for this purpose. Even a small candle can provide enough heat to bring water up to a comfortable drinking temperature.

Aside from the temperature of water, another common excuse for not drinking it is flavor. Boiled water and chemically treated water are said to have a flat or mineral flavor. However, white pine needles and wintergreen are found throughout the winter and can be used to impart a more palatable flavor to drinking water. Water is brought to a boil and then poured over the needles, steeping it until the oils from the plants are extracted.

One last consideration for water intake is how to create it from snow and ice. Attempting to melt snow in an empty pot over a flame results in a burnt pot. However, placing some snow or ice in a small zip-top bag and putting it between your layers of clothing when you are generating body heat will melt snow or ice. The water you make this way will supplement what you drink from your canteen. Every additional drop of water you drink helps you.

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Winter CLEANUP

USING THE OFF MONTHS TO MAINTAIN FISHING GEAR

By Dana Benner

WINTER IN NEW HAMPSHIRE EQUALS EXTREMELY COLD TEMPERATURES AND DEEP SNOW. While good days will find me hare hunting or ice fishing, those days are usually few and far between.

On the days when I do have to hole up, I spend my time trying to catch up on things that got put aside during the warmer months, such as servicing my fishing gear.

Just like any other piece of equipment on the homestead, if fishing gear is not properly maintained, it will probably fail you when you need it the most. All too often, when spring comes, I see anglers so eager to get to their favorite fishing holes that they fail to take the time to clean out their tackle boxes and make sure their rods and reels are in good working order.

When they open those boxes for the first time, what greets them is a tangled mess of dull, rusty hooks, empty containers of bug repellent that have leaked over everything, soft plastic baits that seem to have glued themselves to the bottom of the box and a host of other nasty issues. If they happen to find a lure in decent shape, they sometimes can't cast it properly because their reel jams as a result of poor or no maintenance. Chances are, they probably didn't even change the line.

While I do enjoy fishing, I don't fish for the sport. The fish I catch either end up on my table or the tables of people who can't get out or afford store-bought fish. (I was brought up to provide for my family and help others whenever I could.)



“... I SPEND MY TIME TRYING TO CATCH UP ON THINGS THAT GOT PUT ASIDE DURING THE WARMER MONTHS, SUCH AS SERVICING MY FISHING GEAR.”



(above) This is an example of a baitcasting reel that is cleaned, lubed and re-spooled—ready for action!

(top right) A baitcasting reel spooled with 14-pound test line. Once everything is back together, make sure to mark it in some fashion so you will know what weight line you have in it.

(below) Baitcasting reels are full of little magnets. On this reel, you'll see the magnets on the cover. They are the little, round dots.

I do this with my hunting and fishing. For that reason, it is very important that I keep my gear in top shape. Improperly maintained gear is more than an inconvenience to me. It actually impacts many people.

For the sake of keeping tasks easy, I break my maintenance down into three parts—tackle, reels and rods—and complete each before going on to the next.

TACKLE

A cold, snowy winter day might find me sitting in the kitchen with various lures and other fishing equipment strewn across the kitchen table. I start by inspecting all the lures. Those



that are damaged beyond repair are thrown out. For those that are kept, rusty hooks and bent split rings are replaced. Loose hooks need to be inspected. Those that are rusted, bent or broken need to be thrown out. A rusted or damaged hook can mean a fish lost, and a lost fish means a lost meal. Loose weights, swivels and other small items are inspected and then stored in containers for easy access when needed. Old pill bottles work well for this.

While everything is out, I will clean the tackle box itself. I get rid of leaky bottles of insect repellent and scent bottles. When I put the tackle back in the box, I pay attention to where everything is. There is nothing worse than fishing at night and having to fumble around, trying to find that special lure.

REELS

Taking one reel at a time, I pull all the line off, putting it in a bag to be recycled. The reel is set aside, and the process is repeated until each reel's line is removed.

The next step is taking apart each reel and cleaning it. Like any mechanical device, fishing reels comprise a variety of small, moving parts, each one being equally important as the next. It doesn't take much to make a fishing reel stop working—just one piece of sand or dirt in the wrong place will do the trick. I recommend



"I WAS BROUGHT UP TO PROVIDE FOR MY FAMILY ... FOR THAT REASON, IT IS VERY IMPORTANT THAT I KEEP MY GEAR IN TOP SHAPE."



(left) Spinning reels are machines. Make sure the gears line up and aren't damaged.

(inset) The eyelets of each rod need to be inspected for any damage, such as nicks and burs, which could create problems for the line.

(bottom) It is very important that your tackle box is cleaned and organized to make it easier to find what you want, especially at night.

taking each reel apart separately so that no small parts, such as screws and gears, get mixed up or lost.

Once the reels are apart, I carefully clean out any dirt, sand and old grease. A pipe cleaner works well for this task. I stay away from cotton swabs (Q-Tips), because small bits of the cotton can get into the gears, causing problems down the road. With that done, I then re-lubricate. Some parts require light oil; some need grease. If you are going to go through the effort of servicing your reel, do it right. Poor maintenance is just as bad as no maintenance.

Here is where a copy of the manufacturer's guidelines comes into play. I keep all the paperwork that comes with my reels so I can refer back to it. The booklets that come with reels are just like those that come with your car or truck. If you follow the instructions for your reels, they will perform perfectly for many years.

If you don't have the manual that comes with your reel, a good rule of thumb is that all gears need grease; the rest needs a light coat of oil—and a little goes a long way. Too much of either will attract dirt and sand that will jam up moving parts.

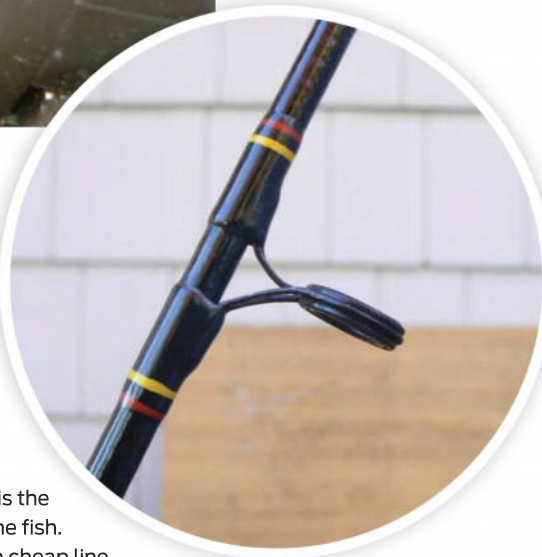
Whether you use grease or oil, make sure to use a high-quality product made specifically for fishing reels. Since many reels today are made with plastic parts, the wrong product may damage them.

You also have to think about products that may come into contact with your line. There are many good products on the market. I have found that Blakemore puts out some of the best. One is grease called Reel Lube, and the other is light oil called Real Magic. Another

product I have found really effective is called GetSome 1000, manufactured by GetSome Products. Designed to be used on fishing gear, these products will not damage parts or the fishing line (see the sidebar on page 118).

RE-SPOOLING

Remember that your line is the main link between you and the fish. For that reason, don't go with cheap line. Use the best line you can afford. In the long run, it will be money well spent.



GetSome 1000— A Rare Find

My way of life is a constant survival situation. For that reason, my tools (firearms, fishing equipment, chainsaws, etc.) are very important to me. Proper maintenance of these tools is essential.

Over the years, I have used many products to help me maintain my tools; some of these products work better than others. Very rarely have I found one product that has so many uses, but GetSome 1000 is one of those rare finds.

I initially saw it advertised, so I decided to pick up a bottle and give it a try. I wanted to see if it was everything the manufacturer claimed it to be.

I put the product to the test by using it on my shotgun and fishing gear, and I liked what I saw. I noticed better casting ability in my fishing gear and a smoother action on my pump shotgun. From there, I investigated further to find out what makes GetSome 1000 different from other products on the market.

First and foremost, GetSome 1000 contains no petroleum products or silicone. This is important, because many of the parts on modern tools—fishing reels in particular—are made from plastic. Plastic, itself, is made from petroleum products. So, in some cases, petroleum-based cleaners will actually damage plastic parts; it is best to stay away from them if you can.

GetSome 1000 will not gum up or attract sand and dirt. It repels moisture and helps protect your gear from the harmful effects of saltwater or salt spray—good news for those of us who fish along the coast and hunt

PHOTO COURTESY OF GETSOME PRODUCTS



GetSome 1000
Products

sea ducks in the fall. GetSome 1000 is safe for fishing line and tackle boxes, and it leaves no unpleasant odor on your lures and bait.

Despite all its good points, this product will not replace proper maintenance of your gear. At the very least, you will still need to properly clean all your gear at the end of the season. GetSome 1000 is just another tool that allows you to keep things running.

CONTACT INFORMATION

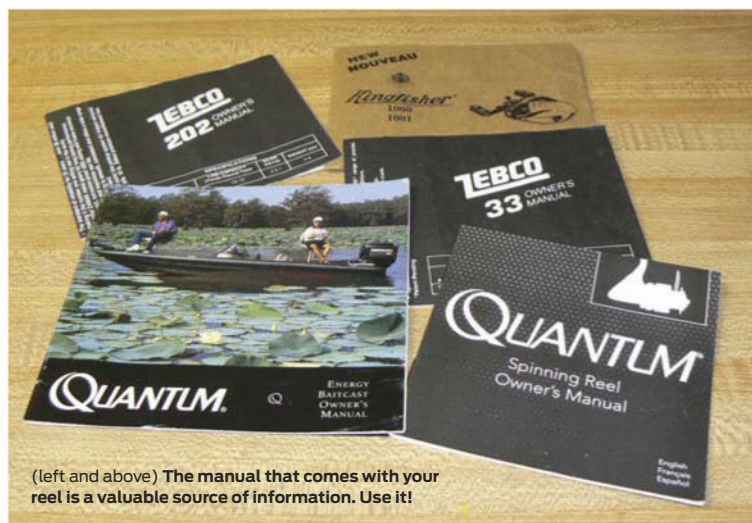
GetSome Products
(407) 830-4669
www.getsomeproducts.com
GetSome 1000 MSRP: \$18.95

(right) Spinning reel cleaned, lubed and re-spooled

(below) Close-up of gears in spinning reel

(below right) Supplies for reel maintenance. Make sure you have everything you need gathered together before you start.





(left and above) The manual that comes with your reel is a valuable source of information. Use it!

“POOR MAINTENANCE IS JUST AS BAD AS NO MAINTENANCE ... IF YOU FOLLOW THE INSTRUCTIONS FOR YOUR REELS, THEY WILL PERFORM PERFECTLY FOR MANY YEARS.”

With that said, it is easy to get caught up in all the hype that the line manufacturers put out. Unless you are a tournament angler out to win a million dollars, I say, use whatever line you feel comfortable with. I have always been satisfied with the line put out by both Stren and Berkeley, so those are what I stick with.

The reel's manual is a good place to look before spooling the reel with line. Another good place to look is the reel itself. Some reels work better with line of a certain size range.

After I re-spool the reels, I mark them with a piece of masking tape with the line size on it. With the number of reels I own, it is hard to remember all the line sizes. The line used depends on the rod I will be using with the reel. Coupling the right rod with the right reel makes a big difference.

The manual will also give you instructions regarding how to put the line on the reel and how much to put on. Each reel seems to be different, so follow the instructions carefully.

RODS

I visually inspect all rods for any damage, paying close attention to the line guides or eyelets. Any damage here will slowly weaken the line or cut

it outright. It will also affect casting ability. Bent or broken guides need to be fixed or replaced. Depending on where the break is on the rod, broken rods can usually be repaired (although, in some cases, it is more cost effective to buy a new one).

By doing this work now, I know that

come open water season, my gear will be ready. When a good part of your livelihood comes from the land, properly operating equipment is a must—whether it is a chainsaw, a generator or fishing equipment. Take care of your equipment now, and it will take care of you later. **ASG**

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www.tormach.com/asg

GEAR GUIDE

02.16

FOOD

Worry-Free Survival Foods

Food reserves that will stand up to the test of time!

By Michael D'Angona

IF YOU ASK MOST PEOPLE whether they have enough food on hand if an emergency occurs, the majority of those asked would probably say yes. But what is their definition of "enough"? And what is their definition of an "emergency"? These are very important questions, because they are totally subjective.

To some, a few days' worth of food would be a lot; to others, a few weeks; and to a select few, it might be several months. Also, the exact extent of the emergency might be varied. Some individuals might imagine a simple power outage as an emergency situation, while others might classify only extreme weather conditions, such as a hurricane or blizzard, as true emergencies.

The real truth is that the need for food storage could run into many years or even decades. An EMP (electromagnetic pulse) strike, foreign invasion or even civil anarchy might halt the production and/or transportation of food for generations.

The idea that food, especially items such as fresh meat or poultry, stored for such a long time can maintain freshness, retain nutritional efficacy and still exhibit a relatively pleasant taste might seem hard to believe, but such foods do exist. Dehydrated, freeze-dried and traditional "tin-can" prepared foods can meet your needs if or when the worst-case survival scenario strikes.

The key to starting a long-term storage preparation plan begins with assessing the most probable survival situations that could occur. How many people will you need to feed? Where will you store your food? And, most importantly, how much is enough?

Once these questions are answered, you can execute your food storage plan. Before you know it, you and your family will have enough on hand to meet your needs far into the future.



PHOTO BY THINKSTOCK



Werling and Sons Canned Meat Variety Pack

Features

- Create your own mix
- Heat and eat
- Fully cooked
- Preservative free
- Low fat
- Long shelf life

Can't decide what type of canned meat you want to store? No problem. The Werling and Sons six-can variety pack of 28-ounce cans offers you delicious, ready-to-eat meats perfect for any food storage plan. Choose from beef, pork, chicken, turkey, hamburger and even taco beef filling to add some variety to your dinner meals. All meats are strictly preservative free and store easily without the need for refrigeration. Protein is an essential part of your diet during good times or bad, so stock up on all your favorites.

\$72

www.werlingandsons.com



Canned Ground Beef (Full Case, 12 14.5-Ounce Cans)

Ground beef offers you variety—plain and simple! This 12-pack of ground beef allows you to produce diverse meals for your family while under survival or emergency conditions. The convenient, 14.5-ounce size ensures little waste as you prepare burritos, rice and beef, makeshift tacos or whatever ground beef-based dinner you choose. This item is fully cooked and can last in proper storage conditions for 15 years or more. No MSG, additives, fillers or chemicals are ever added. The meat is 100 percent USA produced.

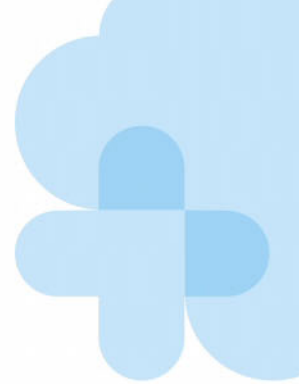
Features

- Make diverse meals
- High in protein
- Hand packed
- Convenient, 14.5-ounce cans
- Slow pressure cooked
- 12 to 15 years minimum shelf life

\$129

www.survivalcavefood.com





\$20.89
www.thrivelife.com



Sloppy Joe TVP

TVP (textured vegetable protein) can offer you numerous benefits while living in survival conditions. This "Sloppy Joe" version is an excellent source of protein and is high in fiber and low in fat. Because it's not made from meat, it doesn't run any risk of contamination from bacteria such as E. coli or salmonella. Its added seasoning provides a tasty flavor to spice up normal beef dishes, and it can be used for tacos, burritos or, as its name suggests, Sloppy Joes. It's an excellent way to add to fresh meat dishes to make your food supply last longer in times of need.

Features

- Institutional-sized #10 cans
- Up to 10-year shelf life
- Certified gluten free
- No artificial colors
- No artificial flavors
- Produced in the USA



Long-term Food Reserve (2,880 Servings)

Store these easily stackable buckets and take the worry of finding food off your mind for months. This complete assembly of dehydrated foods offers 2,880 servings—enough to supply a 2,000 calorie-per-day diet for eight full months. This diverse collection of survival foods includes such tasty entrées as Southwest chili, red beans, and rice and chicken vegetable soup. Follow that with some mixed fruit or chocolate pudding for dessert, and enjoy a great night's sleep on a full stomach. These pouches require only water to create a great meal in minutes.

Features

- More than 15 diverse items
- 2,000 calories per day
- Perfect for breakfast, lunch and dinner
- Easy preparation
- High-quality taste and texture
- 25-year shelf life

\$2,799
www.survivalcavefood.com



Deluxe Four-Person, One-Year Kit

It's easy to prepare a meal for one person, but what about an entire family? This kit takes care of that. Its immense food-storage reserve supplies a family of four with the necessary daily calorie intake for a full 12 months. Packed with delicious, best-selling products, the kit includes favorites such as scrambled eggs, buttermilk pancakes, and comforting beef or chicken soups. Vegetables, including broccoli, carrots and potatoes, add needed vitamins to your daily diet. End your meals with sweet strawberries, apple slices or honey-coated bananas. Just add water for easy preparation. Both dehydrated and freeze-dried foods are included in this mega-mix.

Features

- Rehydrates easily with hot water
- Approximately 1,290 calories per day
- 360 #10 institutional cans
- No refrigeration needed
- Included recipes on labels
- Up to 30-year shelf life

\$4,321.29
www.augasonfarms.com





Meat & Poultry Supply

Are you preparing food for the future? If so, this assortment is a must-have on your list. Contained within their durable hard plastic containers are 80 servings of tasty meat, poultry and rice—perfect for any food preparation plan. All foods are freeze dried, sealed in extremely durable Mylar pouches and can last up to 15 years under proper conditions. Enjoy such favorites as roasted chicken, Beef Stroganoff, teriyaki chicken and cheesy beef. Two pouches of rice provide an excellent side dish for your beef or chicken entrées. Just add boiling water, and your meals are ready to eat—with no extra steps or ingredients. Buckets stack and lock together for easy storage.



Features

- 60 freeze-dried meat servings
- 20 freeze-dried rice servings
- Lock-in stacking buckets
- Quality guaranteed
- 15-year shelf life
- Made in the USA

\$144.99

www.wisefoodstorage.com



Emergency Meal Combo

Enjoy variety, even under survival conditions. This emergency combo contains 70 servings of four delicious, easy-to-prepare freeze-dried meals contained within six #10 cans. They will last up to 15 years under ideal storage conditions and take very little effort to prepare: Just add boiling water to reconstitute into tasty lunches or dinners. This assortment makes an ideal addition to your long-term storage plan, either at home or in your remote bugout location. Stock up well today for an unknown tomorrow.

Features

- Four delicious meal options
- Oxygen absorbers included
- Easy preparation
- Great money-savers
- Freeze-dried foods
- 10- to 15-year shelf life

\$157.99

www.honeyville.com

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GEAR GUIDE

FOOD

Freeze Dried Fruit & Vegetable Variety Pack

You can't survive on meat alone. Essential nutrients from fruits and vegetables are absolute musts to contribute to a well-balanced diet. This mix handles that perfectly. Contained within two easy-to carry storage buckets are up to 14 different freeze-dried fruits and vegetables that make perfect side dishes, snacks or tasty added ingredients to your main entrées. They only require warm water to bring out their full flavor and texture, and you will be able to get your daily nutritional allowances nearly anywhere at any time, no matter what our uncertain world throws at you. More than 500 total servings are included.

Features

- Just add water
- Diverse assortments
- Simple directions included
- Up to one-year shelf life (opened)
- Up to 20-year shelf life (unopened)
- Two easy-store buckets



\$377.59

www.augasonfarms.com



Canned Bacon

Canned bacon? Absolutely! And with a 10-year shelf life, this breakfast staple makes an excellent addition to your long-term food storage plan. The bacon is fully pre-cooked, so there is little to no loss of fat or flavor when heating over your fire or on your camp stove. Enjoy the flavor and texture of real bacon during full survival situations or just when camping with the family over the weekend. This unique product requires no refrigeration before opening, stores easily in your food supply cabinet or is ready for instant use at your bugout location.

Features

- Superb texture
- Fully precooked
- Enjoy hot or cold
- Delicious flavor
- Over 1/2 pound per can
- Full-length strips

\$15.49

www.pleasanthillgrain.com



Seasoned Chicken Slices

Freeze-dried chicken strips have all the goodness of fresh chicken without the mess, preparation time or danger from salmonella or other bacterial contamination. These delicious strips are made from whole chicken breasts that have been lightly seasoned and packed in #10 cans to last for decades without loss of quality, texture or taste. Add them to nearly any dish, including fajitas, salads, pastas and soups. Perfect for large families or bugout community groups.

\$61.79

www.thrivelife.com

Features

- Certified gluten free
- No GMOs (genetically modified organisms)
- No bio-engineered ingredients
- No artificial colors or flavors
- Easy preparation
- 25-year shelf life



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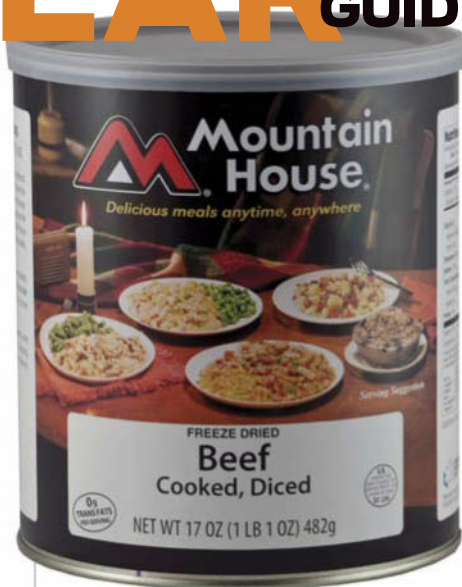
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GEAR GUIDE

FOOD



Freeze-Dried Diced Beef

This freeze-dried, diced beef allows you to create a different meal every night for you or your family. Don't be stopped by a power outage or a full-blown emergency situation; with just hot water and a few extra ingredients, you can serve a variety of dinner options. The 17-ounce cans allow for portion control and seal tightly when stored away. Food will stay fresh for up to a year when opened and a mind-staggering 25 years if unopened. Use in conjunction with freeze-dried side dishes to help supply needed calories and nutrients until times get back to "normal."

\$69.99

www.mountainhouse.com

Features

- Nearly 10 servings
- No refrigeration needed
- Easy to prepare
- Versatile for many recipes
- Plastic replacement lid
- 25-year shelf life

One-Month Food Kit

After a crisis hits, there is no time to think about possible food sources. Be prepared well in advance with a full month of freeze-dried meals. Enjoy tasty breakfast favorites, including brown sugar oatmeal and banana cereal. Follow that with comforting macaroni and cheese, Italian lasagna, Fettuccine Alfredo and creamy Stroganoff for lunch and dinner. Even beverages are included: Refreshing orange drinks and cold milk are ready to serve. Purchase several kits and stack them away in an unused closet, garage or even in the trunk of your car. The kit includes 60 Mylar pouches that equal a total of more than 45,100 calories.

Features

- No cleanup
- 10 full servings
- Exceptional taste and texture
- Long-life food
- All-natural beef
- 8- to 10-minute preparation time

Freeze-Dried Beef Stew

A rich and hearty meal is usually not synonymous with survival, but it can be achieved. With Mountain House's beef stew, you can have a complete meal anytime and anywhere without complex preparation and with zero cleanup afterwards. Enjoy tasty

\$8.49

www.mountainhouse.com

beef, potatoes, peas and carrots in a rich beef stew sauce just by adding boiling water. Re-energize with a delicious meal rich in protein, low in fat and perfect to keep you going when times get tough. Granola, fruits and other snack items are good, but few things beat a hot, tasty, comforting meal at dinnertime.



\$199

www.liveprepared.com

Features

- Reconstitute with boiling water
- No-mess cleanup
- Easy preparation
- Stackable pails for easy storage
- No refrigeration needed
- 15-year shelf life

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Review by JD Hughes

When the iconoclastic loner inspires followers and those followers inspire others, you have the beginnings of a movement. Once you have a movement, time and circumstances dictate its future. Does that movement grow and become mainstream, or does it wither on the vine, becoming a passing fad?

The Prepper's Pocket Guide

BOOK BY BERNIE CARR

When did the mountain man become the pioneer? When did the survivalist become the prepper?

The mountain men felt constrained by society. But, unlike their fellows, they were willing to challenge the unknown and search for their fortunes beyond the edges of the map. As years passed, their efforts filled in the gaps, pushing the edges further and further. Population growth and the search for opportunity provided all that was needed for the path of the mountain man to become the trail of the pioneer.

The Cold War, along with growing crime rates and an increasingly complex and interdependent society, created the survivalist. The threat of complete and utter destruction was the *zeitgeist* of entire generations. Some chose to remain in denial and live their lives in blissful ignorance, preferring to pretend that things beyond their control were inevitable and that nothing they could do would change the outcome.

Others refused to bury their heads in the sand. They built bunkers, stockpiled food and ammunition, and generally planned to survive the apocalypse they thought was unavoidable.

It didn't happen. Y2K was the end of the survivalist. Those who had stocked their basements—despite the mocking looks and comments from friends and family—woke up to a world that was still there.

The Prepper's Pocket Guide eventually went out of publication, in spite of trying to adapt to a less hardcore audience. Then came 9/11 and Hurricane Katrina, both graphic reminders that government, despite all its power, could not take care of everyone all the time.

These events were wake-up calls to the average Joe. The prepper was born—the mainstream survivalist.

Where the threat of nuclear Armageddon couldn't motivate, the images of a stadium full of people waiting for fresh water could. Soccer moms and dads who couldn't comprehend a nuclear winter could easily imagine their children begging for food after an earthquake.

However, unlike the survivalist, the average prepper isn't preparing for the end of the world. The average prepper is making ready for that unexpected event that forces them to rely on themselves for 72 hours. Nobody gets a funny look for preparing for an earthquake or a tsunami.

The Prepper's Pocket Guide is a book written for that soccer mom. One of the biggest obstacles to the beginning prepper is the sense of being overwhelmed. This book addresses questions such as, "How can I possibly do everything that I need to do to prepare?" and "Where do I even start?"

The first subject the author discusses is the myths that discourage the beginning prepper, such as, *it's too expensive and it takes too much time*. Chapter one of the book lays out the first nine tasks, from decluttering your life to finding places to store the canned food and water your family needs. Even if you don't read any further, you would still be well on your way to self-preparedness. The author emphasizes the "baby steps" that can very quickly lead to a solid sense of accomplishment.

Chapter two covers financial planning—an often-overlooked area. From reviewing your insurance coverage to starting a \$5-a-week food storage program, the advice given consistently rings true.

The following chapters cover food, health, power and even when and how to bug out. In the final pages, the author provides a list of Web resources and even a recommended reading list.

The subtitle of the book is *101 Easy Things You Can Do To Ready Your Home for A Disaster*, and they are exactly that—easy things.

But you've been doing this for years, you say. You don't need a beginner's guide. Maybe, or maybe you didn't think of number 93: "Learn to make a perfect cup of coffee without electricity." As they say, the devil is in the details, and 72 hours without coffee might seem like hell on earth. **ADD**



Where to Buy It:
The Prepper's Pocket Guide
 Bernie Carr
www.amazon.com
 \$9.60

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FEBRUARY 2016

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By Garrett Lucas

The End of the Road ...

Having recently reviewed several studies and done the math, I've figured out that the average American spends around 540 hours per year in their vehicle. That's almost two hours a day.

One report indicates that numbers might be trending upward because of the lower gas prices this past six months. Of course, that's currently a statistical anomaly, because gas prices might "normalize" in the coming year.

Along with the sense of freedom that we Americans tend to enjoy while we drive, we expose ourselves to numerous risks and threats we wouldn't otherwise encounter. Whether it's a wreck, attempted carjacking or getting lost on a side road during a blizzard, there are lots of scenarios in which one could face a dangerous situation.

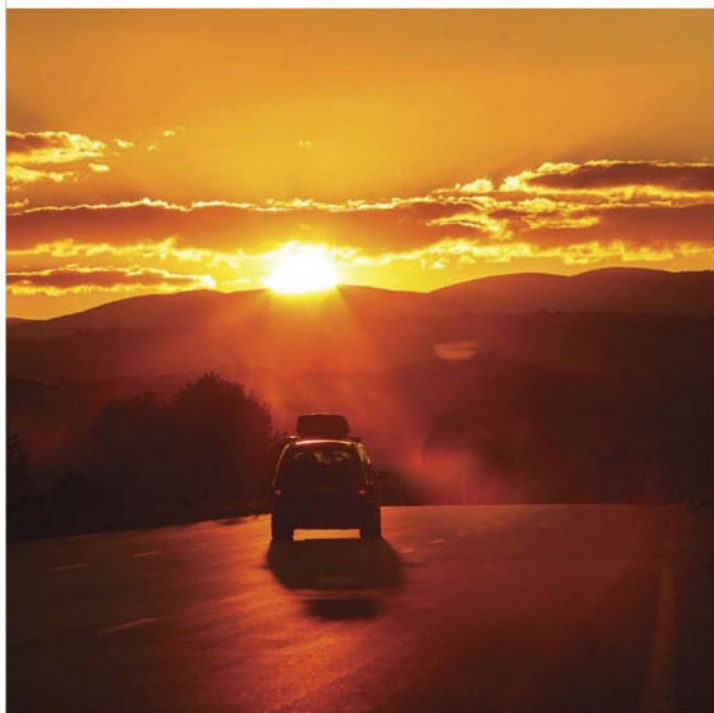
Our vehicles are the closest things to home when we are away from the place we live. They are sanctuaries of sorts, but they do have their limits as to the safety they can provide in their factory configurations.

It's this fact that places the onus on each of us to take responsibility for our own safety when we are out and about. Do a search online, and you will find multiple stories of people who perished because they didn't have the ability to defend themselves or the gear and other supplies to survive the environment in which they were traveling.

This column isn't really about what you should have in your car at any given time, because we've discussed some of that in an article in this issue. Instead, it's simply a polite suggestion to take this matter seriously. Whether you're driving through the desert and need spare water or stuck on the side of a road during a whiteout, there is situation-specific gear you need to consider having with you.

Some of that gear, such as items for self-defense, can generally be the same, but you might need a tarp in the desert for shade and a sleeping bag in the winter to keep you warm while you wait in the car. In both situations, you could probably stand having extra food, water and gasoline—*just in case* something happens.

In essence, the first step to being prepared is to anticipate possible problems, and the second step is to have a



solution ready should that problem occur. You won't think of everything at first, but you can always add more. And, as your training and skills increase, you can do more with less, or you can acquire additional equipment that will be useful only to those who have learned particular skills—such as mechanical or bushcraft skills.

It's only my opinion, but the first item I would pick up for emergency situations in the car or on foot is a personal locator beacon (PLB). Once employed, these devices communicate with satellites that alert authorities to your position within minutes. They will know you are in a desperate situation and will move quickly to find you at your location. It's amazing how many lost drivers, hikers, backpackers and people in maritime environments could have been saved if they had had one of these devices on them when circumstances went south on them.

The shelf life of these devices is generally around 10 years, and they should only be deployed in a true emergency—not when you run out of gas, but when your life is truly in jeopardy. Even if you don't have the skills or gear necessary to facilitate your own survival, a PLB will get help to you quickly so you can turn the corner and escape the grasp of death; or, you can just sit there, waiting for it.

Thinking ahead, planning and following through with your preparations, depending on the season and environment, will go a long way to ensuring your safety and that of your fellow travelers. Such easy steps might make the difference between moving forward with your life and simply hitting the end of the road. ■■■

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